FORM 6-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549



REPORT OF FOREIGN PRIVATE ISSUER

PURSUANT TO RULE 13a-16 or 15d-16/QF THE SECURITIES EXCHANGE ACT OF 1933

For the month of February 2002

Tioga Technologies Ltd. (Translation of registrant's name into English)

1 Azrieli Center, Round Tower Tel Aviv, Israel 011-(972-3) 607-0333 (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F	$\underline{\mathbf{X}}$	Form 40-F	

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes _____ No X

TIOGA TECHNOLOGIES LTD. FORM 6-K

Proxy Statement

The registrant issued to its shareholders a notice of annual general meeting of shareholders and proxy statement dated February 28, 2002 which is attached to this report as Exhibit 99 and is incorporated herein by reference.

Information Incorporated by Reference

The information in this Report on Form 6-K is incorporated by reference into all Registration Statements which the registrant has filed or which it will file in the future under the Securities Act of 1933, as amended, which permit such reports to be so incorporated.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TIOGA TECHNOLOGIES LTD. (Registrant)

Date: as of June 28, 2002

Ву

Douglas D. Goodyear President and CEO

Exhibit Index

Exhibit Number	Description of Exhibit
99	Notice of 2002 Annual General Meeting of Shareholders and Proxy Statement of Tioga Technologies Ltd., dated February 28, 2002

TIOGA TECHNOLOGIES LTD.

NOTICE OF 2002 ANNUAL GENERAL MEETING OF SHAREHOLDERS

To all Tioga shareholders:

NOTICE IS HEREBY GIVEN that the 2002 Annual Meeting of Shareholders (the "Meeting") of Tioga Technologies Ltd. (the "Company" or "Tioga") will be held on Tuesday, March 26, 2002 at 10:00 a.m. (Israel time), at the offices of the Company, 32 Nahalat Yitzhak Street, Tel Aviv, Israel.

The agenda of the Annual General Meeting will be as follows:

- (1) election of Douglas Goodyear, Moti Kintzlinger, Eric Paneth and Izhak Tamir to our board of directors;
- (2) approval and ratification of the agreements executed by and between the Company and STMicroelectronics Ltd. and STMicroelectronics NV;
- (3) reappointment of Kost Forer & Gabbay, a member of Ernst & Young, as our independent auditors; and
 - (4) consideration of our audited financial statements for the year ended December 31, 2001.

Shareholders of record at the close of business on February 25, 2002 are entitled to notice of, and to vote at, the Meeting. All shareholders are cordially invited to attend the Meeting in person.

Shareholders who are unable to attend the Meeting in person are requested to complete, date and sign the enclosed form of proxy and to return it promptly in the pre-addressed envelope provided. No postage is required if mailed in the United States. Shareholders who attend the Meeting may revoke their proxies and vote their shares in person.

Joint holders of shares should take note that, pursuant to Article 32(d) of the Articles of Association of the Company, the vote of the senior holder of the joint shares who tenders a vote, in person or by proxy, will be accepted to the exclusion of the vote(s) of the other joint holder(s). For this purpose seniority will be determined by the order in which the names stand in the Company's Register of Members.

By Order of the Board of Directors,

DOUGLAS GOODYEAR

President and Chief Executive Officer

Dated: February 28, 2002

TIOGA TECHNOLOGIES LTD.

32 Nahalat Yitzhak Street Tel Aviv 67448, Israel

PROXY	STA	TEN	MENT

This Proxy Statement is furnished to the holders of Ordinary Shares, NIS 0.10 nominal value (the "Ordinary Shares"), of Tioga Technologies Ltd. ("Tioga" or the "Company") in connection with the solicitation by the Board of Directors of proxies for use at the 2002 Annual Meeting of Shareholders (the "Meeting"), or at any adjournment thereof, pursuant to the accompanying Notice of 2002 Annual Meeting of Shareholders. The Meeting will be held on Tuesday, March 26, 2002 at 10:00 a.m. (Israel time), at the offices of the Company, 32 Nahalat Yitzhak Street, Tel Aviv, Israel.

The agenda of the Annual General Meeting will be as follows:

- (1) election of Douglas Goodyear, Moti Kintzlinger, Eric Paneth and Izhak Tamir to our board of directors;
- (2) approval and ratification of the agreements executed by and between the Company and STMicroelectronics Ltd. and STMicroelectronics NV;
- (3) reappointment of Kost Forer & Gabbay, a member of Ernst & Young, as our independent auditors; and
 - (4) consideration of our audited financial statements for the year ended December 31, 2001.

The Company currently is not aware of any other matters which will come before the Meeting. If any other matters properly come before the Meeting, the persons designated as proxies intend to vote in accordance with their judgment on such matters.

A form of proxy for use at the Meeting and a return envelope for the proxy are enclosed. Shareholders may revoke the authority granted by their execution of proxies at any time before the exercise thereof by filing with the Company a written notice of revocation or duly executed proxy bearing a later date, or by voting in person at the Meeting. Unless otherwise indicated on the form of proxy, shares represented by any proxy in the enclosed form, if the proxy is properly executed and received by the Company not less than 72 hours prior to the time fixed for the Meeting, will be voted in favor of all the matters to be presented to the Meeting, as described above. On all matters considered at the Meeting, abstentions and broker non-votes will be treated as neither a vote "for" nor "against" the matter, although they will be counted in determining whether a quorum is present.

Proxies for use at the Meeting are being solicited by the Board of Directors of the Company. Only shareholders of record at the close of business on February 25, 2002 will be entitled to vote at the Meeting. Proxies are being mailed to shareholders on or about March 4, 2002 and will be solicited chiefly by mail. However, certain officers, directors, employees and agents of the Company, none of whom will receive additional compensation therefor, may solicit proxies by telephone, telegram or other personal contact. The Company will bear the cost for the solicitation of the proxies, including postage, printing and handling, and will reimburse the reasonable expenses of brokerage firms and others for forwarding material to beneficial owners of shares.

The Company had outstanding on February 25, 2002, 24,506,648 Ordinary Shares, each of which is entitled to one vote upon each of the matters to be presented at the Meeting. Two or more shareholders conferring in the aggregate 25% of the outstanding Ordinary Shares, present in person or by proxy and entitled to vote, will constitute a quorum at the Meeting.

OWNERSHIP OF ORDINARY SHARES

To our knowledge, we are not directly or indirectly controlled by another corporation or by any foreign government. The Option Agreement described below may at a subsequent date result in a change in control of the Company. The following table sets forth, as of February 25, 2002, the number of our Ordinary Shares, which constitute our only voting securities, beneficially owned by all shareholders known to us to own more than 5% of our outstanding ordinary shares.

Identity of Person or Group	Amount Owned	
Eric Paneth(2)	3,022,605	12.3%
Izhak Tamir(2)	3,022,605	12.3%
Clal Electronics Industries Ltd. and affiliates(3)	2,773,249	11.2%

- (1) Based on 24,506,648 Ordinary Shares outstanding on February 25, 2002.
- (2) Includes 57,500 ordinary shares issuable upon the exercise of options.
- (3) Includes (i) 2,512,650 ordinary shares owned by Clal Electronics Industries Ltd. ("Clal Electronics"), (ii) 146,851 ordinary shares issuable upon the conversion of Orckit's 5.75% convertible subordinated notes owned by Clal Electronics and (ii) 113,748 ordinary shares owned by Clal Venture Capital Fund L.P. ("Clal VC"). Clal Electronics is a wholly owned subsidiary of Clal Industries and Investments Ltd. ("Clal Industries"). Clal Industries in turn is controlled by IDB Development Corporation Ltd. ("IDBD") (IDBD owns directly approximately 63.64% of the voting securities of Clal Industries). IDBD is controlled by IDB Holding Corporation Ltd. ("IDBH") (IDBH owns approximately 57.78% of the voting securities of IDBD). Clal VC's general partner is Clal Venture Capital Fund Management Ltd., which is owned in equal parts by Clal Industries, Clal Electronics and Clal Issuing Ltd., a wholly owned subsidiary of IDBD. Their principal address is 3 Azrieli Center, Triangle Tower, Tel Aviv, Israel. This information is based upon the information provided to the Company by Clal Electronics.

ITEM 1—ELECTION OF DIRECTORS

Directors of the Company, other than outside directors, are elected at each Annual Meeting of Shareholders. At the Meeting, shareholders will be asked to re-elect Moti Kintzlinger, Eric Paneth, Izhak Tamir and Douglas Goodyear, President and Chief Executive Officer of the Company, to our Board of Directors. Our outside directors, Menachem Abraham and Harel Kodesh, were elected in 2000, pursuant to applicable law, their initial term will expire in 2003.

A brief biography of each nominee is set forth below:

Douglas Goodyear has served as our President and Chief Executive Officer since January 2001. He joined the Company as our Vice President of Worldwide Sales in June 2000. From 1998 to 2000, Mr. Goodyear served as Senior Vice President of Worldwide Sales at Radisys Corporation, a supplier of Telecom and Networking solutions. He was Vice President of Worldwide Sales for Actel, a supplier of programmable integrated circuits from 1995 to 1998, and Vice President of North American Sales for the Microelectronics Group of Sharp Electronics from 1990 to 1995. Prior to this time, Mr. Goodyear, during a twenty-year career in the semiconductor and components industry, held various sales and sales management positions with Hitachi, Advanced Micro Devices, and Signetics Corp. Mr. Goodyear holds B.S. degrees in both Computer Science & Management at the University of Nebraska.

Moti Kintzlinger has served as one of our directors since May 2000 and served as vice president and general manager of our Israeli operations from May 2000 to January 2001. Since January 2001, Mr. Kintzlinger has managed a new start-up company called Cinata Inc., which develops IP storage networking solutions for enterprises and service providers. He served as chief executive officer of Silicon Value (S.V.) Ltd. from its founding in 1995 through May 2000. Prior to that time, Mr. Kintzlinger was employed by Digital Equipment Corporation from 1985 until 1994. Mr. Kintzlinger holds an advanced engineering degree from the Israel Institute of Technology, commonly known as the Technion.

Eric Paneth has served as one of our directors since February 2000 and as our President from February 2000 to June 2000. Mr. Paneth has also served as Chairman of the Board of Directors and Chief Executive Officer of Orckit since its founding in 1990. From 1975 until 1983, Mr. Paneth was a senior engineer in the Israeli Ministry of Defense, and from 1985 to 1990, was a technical department head in the Israeli Ministry of Defense. From 1983 until 1985, he was employed by Linkabit Inc., in San Diego, California. Mr. Paneth holds an advanced engineering degree from the Technion.

Izhak Tamir has as served as our Chairman of the Board since February 2000 and as our Chief Executive Officer from February 2000 to June 2000. He has served as President and a Director of Orckit since its founding in 1990. From 1987 until 1989, Mr. Tamir was employed by Comstream Inc., in San Diego, California. From 1985 until 1987, he was vice president of A.T. Communication Channels Ltd., a subsidiary of Bezeq. From 1978 to 1985, he was a senior engineer in the Israeli Ministry of Defense. Mr. Tamir holds an engineering degree from the Technion and an M.B.A. from Tel Aviv University.

The election of the directors requires the affirmative vote of a majority of the shares present, in person or by proxy, and voting on the matter.

It is proposed that at the Meeting the following resolution be adopted:

"RESOLVED, that Douglas Goodyear, Moti Kintzlinger, Eric Paneth and Izhak Tamir be elected to the Board of Directors of the Company, effective immediately."

The Board of Directors recommends a vote FOR approval of the proposed resolution.

ITEM 2—APPROVAL OF AGREEMENTS WITH STMICROELECTRONICS

On February 14, 2002 the Company entered into a strategic agreement with STMicroelectronics NV and its Israeli subsidiary ST Microelectronics Ltd. ("ST NV" and "ST", respectively). The agreement consists of three separate agreements: a Technology Transfer Agreement, a Development, Marketing and Services Agreement and an Option Agreement (collectively the "Agreements").

Although the Company, based on the advise of its Israeli legal counsel, believes that the Agreements do not require shareholders' approval, at ST NV's request the shareholders are asked to approve and ratify the Agreements at the Meeting. Set forth below is a general summary of the Agreements.

THE AGREEMENTS

This section is a summary of the material provisions of the Agreements. Because it is a summary, it does not include all the information that may be important to you in determining your vote. We encourage you to read carefully the entire copy of each of the Agreements, which, with the exception of the schedules and exhibits, are attached as Appendix A to this proxy statement and are incorporated by reference herein, before you decide how to vote.

General

ST NV is a large semiconductor corporation incorporated in the Netherlands, with headquarters in Geneva, Switzerland. ST NV's shares are traded on the New York Stock Exchange (NYSE: STM).

The transaction (the "Transaction") between Tioga, ST NV and ST consists of Technology Transfer Agreement ("TTA"), Development Marketing and Services Agreement ("DMSA") and Option Agreement ("Option Agreement"), all of which were executed by the parties on February 14, 2002 (the "Execution Date").

The closing of the Transaction (the "Closing") is subject to, among other things, the approval of the Agreements by the Israeli Office of Chief Scientist's ("OCS") and Tioga's shareholders. The Closing shall take place not later than five days following the parties' receipt of all necessary approvals. In the event that such approvals are not obtained within 45 days of the Execution Date or such additional term as required for obtaining Tioga's shareholders approval, either party may, subject to certain terms and conditions, terminate the Agreements.

Technology Transfer Agreement

Transfer of Technology and Products

Pursuant to the TTA, Tioga will grant ST co-ownership rights to all of Tioga's intellectual property in the fields of (i) SHDSL, (ii) VDSL, (iii) ADSL, (iv) G.lite, (v) HDSL2 and (vi) network traffic management applied to xDSL semiconductor products and xDSL chipsets existing on the Execution Date (the "Transferred Technology").

The TTA further provides for the transfer to ST of ownership over all of Tioga's and Tioga's Affiliates (as defined in the TTA) existing PeakADSL and Condor integrated circuits, and PeakVDSL, PeakSHDSL and Perflow integrated circuits still under development (the "Products"). In addition, Tioga will transfer to ST ownership of rights under certain design wins on the Execution Date.

Consideration

In consideration for the above, ST agreed to pay Tioga, on the Closing date, a lump sum of US\$10.0 million plus VAT, to the extent applicable (the "Consideration"). US\$1.0 million were delivered by ST NV to Tioga on February 22, 2002 in exchange for Tioga granting co-ownership rights to ST with respect to certain VDSL

patents and certain services that Tioga will provide to ST with respect to a certain research & development project. This amount will be deducted from the Consideration. In the event that the Transaction does not close for any reason whatsoever, Tioga will be entitled to pay ST US\$700,000, at which time ST shall relinquish all its co-ownership rights over the aforesaid VDSL patents.

Additional Covenants

Each of Tioga and ST has undertaken additional covenants in the TTA, which covenants include the parties' obligations: (i) not to sell, grant licenses (other than licensing for manufacturing), or otherwise dispose of the Transferred Technology to any third party (other than, with the approval of the OCS, to either party's affiliates) at any time during the one year period following the execution of the TTA (the "Initial Period"); (ii) during the Initial Period and subject to certain other conditions set forth in the TTA, not to pledge as collateral or otherwise encumber the Transferred Technology with express or implied liens, judgments or adverse claims; (iii) following the Initial Period and in the event that neither the Call Option nor the Put Option, as defined in the Option Agreement, are exercised, to cooperate in good faith in protecting and enforcing the co-owned intellectual property rights, unless otherwise agreed between the parties; and (iv) to cooperate and take all reasonable steps in order to obtain OCS approval of the Transaction and the Agreement, and to comply with OCS requirements with respect to the transfer of the Transferred Technology and the Products.

Tioga has made certain representations with respect to itself and with respect to the Transferred Technology and Products and has undertaken not to grant to any third party any rights in the Transferred Technology during the Initial Period.

ST NV has guaranteed and assumed responsibility for all of ST's obligations under the TTA towards the OCS, including without limitation, all costs and obligations associated with the transfer or license under the TTA and the royalty payments thereafter.

Indemnification

The TTA provides for customary intellectual property indemnification obligations that Tioga may be required to pay upon certain circumstances. All indemnification obligations will expire upon the exercise and consummation of the Call Option or the Put Option.

Development Marketing and Services Agreement

Engagement of Tioga

Pursuant to the DMSA, Tioga will provide ST with research & development and marketing services in the xDSL field, as determined by ST from time to time (the "Services"). The performance of the Services will terminate on the earlier of (i) April 15, 2003 and (ii) the Option Closing, as defined in the Option Agreement.

Under the DMSA, Tioga undertakes to dedicate a workforce of 55 engineers (the "Qualified Workforce") to provide the Services. In the event that the headcount decreases below 35 persons, ST will be entitled, subject to certain terms and conditions, to renegotiate or terminate the DMSA, as more fully set forth in the DMSA.

Consideration

In consideration for the Services and certain intellectual property rights in the technology and products developed during the term of the DMSA, ST will pay Tioga US\$2.0 million plus VAT, to the extent applicable, for each three month period in which the Services are rendered, commencing on January 15, 2002 (the "Quarterly Fee"). The Quarterly Fee will be decreased proportionally in the event that Tioga's Qualified Workforce decreases below 55 persons, as more fully set forth in the DMSA.

The fifth Quarterly Fee is required to be paid monthly in three equal installments, provided that if the Put Option is exercised following such payment, then the Option Consideration, as set forth in the Option Agreement, will be reduced by the amount of such paid fifth Quarterly Fee.

Proprietary Rights

Subject to ST's compliance with the terms of the DMSA, the xDSL design wins and xDSL products (as defined in the DMSA) developed by the Qualified Workforce during the term of the DMSA will be solely owned by ST, whereas all intellectual property developed by such workforce during the term of the DMSA (the "Joint Foreground") will be jointly owned by ST and Tioga.

Under the DMSA, in case of direct or indirect Change of Control (as defined in the DMSA) of Tioga during the period commencing on the Execution Date and ending 24 months following the earlier of the termination of the DMSA and January 15, 2003, by a third party affiliated with a company in the semiconductor or xDSL business (as more fully set forth in the DMSA), ST will automatically acquire exclusive rights of use of Joint Foreground and Tioga's use of the Joint Foreground will be restricted to internal purposes only (*i.e.*, for Tioga's implementation), unless Tioga pays to ST a one-time fee of US\$4.0 million, after which time Tioga shall co-own the Joint Foreground.

In addition, Tioga has agreed not to commercially exploit the Joint Foreground until the earlier of January 15, 2003 or the termination of DMSA. Thereafter, in the event that Tioga commercially exploits the Joint Foreground through the grant of a license, sale of ownership or otherwise (except (i) in a Change of Control as aforesaid, (ii) for its own use, production and sale, and (iii) a license granted to a third party in the ordinary course of business for Tioga's implementation of Joint Foreground), Tioga will be required to pay to ST an access fee equal to 50% of the license fee, sale amounts or other proceeds, excluding royalties and NREs, negotiated and agreed with such third party within 12 months from January 15, 2003 (or the termination of the DMSA, if earlier). Such amounts will be payable to ST upon actual payment to Tioga. The above access fee may be reduced on a specific case-by-case basis, to be negotiated separately, and will not exceed US\$4.0 million.

Term and Termination

The DMSA will remain in force until the earlier of April 15, 2003 and the Option Closing, as defined in the Option Agreement, unless terminated earlier by either party in accordance with the terms of the DMSA. In the event that ST fails to perform its payment obligations under the DMSA, or in the event that Tioga fails to perform the Services without cause and does not cure such failure within 90 days, the other party shall be released from its obligation under Section 2.3 of the TTA not to license, sell or otherwise dispose of the Transferred Technology during the Initial Period.

Option Agreement

Put and Call Options

Under the Option Agreement, Tioga granted ST NV, subject to all requirements and consents required under Israeli law (including shareholder approval, if needed) and under applicable SEC regulations, the right to cause Tioga to merge (the "Merger") with a wholly owned Israeli subsidiary of ST NV (the "Call Option"). In addition, ST NV granted Tioga the right to cause ST NV to effect the Merger (the "Put Option") during the exercise periods set forth in the Option Agreement, *i.e.*, until January, 2003 (with respect to the Call Option) and between January 16, 2003 and January 31, 2003 (with respect to the Put Option). In lieu of the Merger, ST NV may elect to have the exercise of the Call Option or Put Option trigger a sale of all of Tioga's assets and assumption of certain of Tioga's liabilities by ST NV (the "Assets Deal"), as more fully set forth in the Option Agreement.

In addition, the exercise of the Put Option is subject to the fulfillment by Tioga of the following terms and conditions: (i) ST NV's revenues in calendar year 2002 derived from any products incorporating any portion of Tioga's intellectual property, equal to or exceeds US\$10.0 million; (ii) at least 44 of Tioga's R&D engineers, as defined and listed in the DSMA, including such number of senior employees as shall be determined by the parties, shall have been offered (and accepted) employment with ST NV; (iii) in case ST has selected to go through a Merger, the Net Financial Indebtedness (as defined in the Option Agreement) of Tioga does not exceed US\$8.0 million; and (iv) all of the covenants and obligations that Tioga is required to comply with or to perform at or prior to the Option Closing shall have been complied with and performed in all respects during the period until the closing, including any shareholders' approval to effect the Merger or the Assets Deal.

Option Consideration

In consideration for the above, upon the exercise of the Call Option or the Put Option, ST NV will be required to pay to Tioga: (i) in case of a Merger, an amount of US\$12.0 million, as adjusted for the Net Financial Indebtedness (as defined in the Option Agreement) and for any amount required to settle outstanding Tioga obligations related to the convertible debt of Orckit Communications Ltd. ("Orckit"); or (ii) in case of an Assets Deal, an amount of US\$12.0 million reduced by the aggregate amount of unfunded employee-related liabilities, overdue current liabilities that have not been paid under their original terms of payment and accounts receivable sold not yet expired.

Additional Covenants

Each of Tioga and ST has undertaken additional covenants in the Option Agreement, which covenants include Tioga's obligation to (i) take all necessary legal and corporate actions required under applicable law in order to obtain the necessary approvals required for purposes of effecting the Merger or the Assets Deal, upon the exercise of the Put Option or the Call Option, (ii) upon ST NV's exercise of its Call Option, in the event that any Option Closing (as defined in the Option Agreement) cannot be consummated for any reason not attributable to ST NV nor to Force Majeure (as defined in the Option Agreement), to pay ST NV a break-up fee of US\$1.8 million, and to pay additional amounts in the event that within one year following the Notice of No Closing (as defined in the Option Agreement), there is a Change of Control of Tioga (as defined in the DMSA and Option Agreement), as more fully set forth in the Option Agreement; (iii) during the period from the Execution Date until the Option Closing, to carry on its business as a going concern in substantially the same manner as theretofore conducted, to promptly notify ST NV of any occurrence that would cause its representations and warranties to be inaccurate in any material respect, not to mortgage, charge or pledge or create any material lien over any intellectual property asset (excluding in connection with the Orckit loan), and not to solicit, directly or indirectly, any offer to be acquired. The Option Agreement also provides for a mechanism pursuant to which in the event that an offer to acquire Tioga is made by any third party and the Board of Directors of Tioga agrees to recommend to the shareholders of Tioga to accept such offer, Tioga shall notify ST and if ST does not exercise the Call Option and Tioga elects to accept such offer, then Tioga shall immediately pay ST a break-up fee of US\$2.5 million and shall release ST from any non-solicitation obligations with respect to Tioga's employees.

In addition, on the Execution Date, Messrs. Izhak Tamir and Eric Paneth delivered to ST their respective undertakings not to sell their current shares and to vote all their shares in Tioga in favor of the transaction selected by ST NV, if so required, and, in any case, against any other acquisition or merger proposal that may be brought to a shareholders meeting until April 15, 2003 or any other date as agreed between the parties.

Letter Between Orckit Communications Ltd. and Tioga

As part of Tioga's spin-off from Orckit on June 30, 2000, Tioga entered into a revolving loan agreement with Orckit that provides for borrowings by Tioga from Orckit of up to \$20.0 million. Tioga has borrowed the entire amount. The loans mature on March 1, 2005 and accrue interest at the rate of 12-month LIBOR + 2.0% per annum. The loan agreement is secured by a second priority lien on Tioga's present and future assets. Pursuant to the terms of the loan agreement, Orckit may be entitled to accelerate the repayment of the loan as a result of the Transaction.

As part of the Transaction, Orckit and Tioga executed a letter agreement (the "Letter") with respect to their mutual obligations, which Letter includes the following undertakings: (i) prior to the earlier of February 1, 2003 and the Option Closing (such date, the "Termination Date"), Tioga will pay to Orckit, as part of the repayment of Orckit's loan to Tioga, US\$13.0 million to be paid at the Closing of the TTA, and an additional amount not to exceed US\$3.0 million upon receipt by Tioga of certain funds as more fully set forth in the Letter; (ii) Orckit will not demand repayment of the outstanding loan amount prior to the Termination Date, provided that its lien on Tioga's assets and the DMSA remain in full force and effect; and (iii) upon the Option Closing, the entire balance of Orckit's loan to Tioga together with any accrued and unpaid interest will be paid to Orckit. The loan agreement and debenture executed between the parties will remain in full force and effect. A copy of the Letter is included in Appendix A attached hereto.

In addition, the parties have agreed to extend certain provisions of the Intellectual Property Agreement between them, until January 15, 2004.

Vote Required

Under applicable Israeli law, shareholder approval of most matters requires the affirmative vote of a majority of the Ordinary Shares present, in person or by proxy, and voting on the matter. However, a transaction in which a controlling shareholder has a personal interest requires shareholder approval by a special majority following the approval of such transaction by the Audit Committee and Board of Directors. Specifically, the affirmative vote of the Ordinary Shares must include at least one-third of the Ordinary Shares voted by shareholders who do not have a personal interest in the matter (unless the total Ordinary Shares of non-interested shareholders voted against the matter does not represent more than one percent of the outstanding Ordinary Shares). If Eric Paneth and Izhak Tamir, each of whom is a director and significant shareholder of Tioga and an officer, director and significant shareholder of Orckit, are deemed to be controlling shareholders of Tioga and are also deemed to have a personal interest in this matter, the special majority will be required for approval of this matter. Messrs. Tamir and Paneth did not participate in the negotiation or board approval of the Letter, and the Company believes that this special majority is not required. However, for the avoidance of doubt, all shareholders are asked to indicate on the enclosed proxy card whether or not they have a personal interest in this matter. Under the applicable Israeli law, a "personal interest" of a shareholder (i) includes a personal interest of any members of the shareholder's immediate family (or spouses thereof) or a personal interest of an entity in which the shareholder (or such family member thereof) serves as a director or the CEO, owns at least 5% of its issued share capital or its voting rights or has the right to appoint a director or the CEO and (ii) excludes an interest arising from the ownership itself of shares in the Company.

It is proposed that at the Meeting the following resolution be adopted:

"RESOLVED, that the Technology Transfer Agreement, the Development, Marketing and Services Agreement, the Option Agreement and the Letter be approved."

The Board of Directors recommends a vote FOR approval of the proposed resolution.

ITEM 3—APPOINTMENT OF INDEPENDENT AUDITORS

At the Meeting, the shareholders will be asked to approve the reappointment of Kost Forer & Gabbay, a member of Ernst & Young, as our independent auditors for the fiscal year ending December 31, 2002. The shareholders will also be asked to authorize the Board of Directors to fix the compensation of the auditors. The auditors have no relationship to us or with any of our affiliates, except as auditors. A representative of the auditors will be present at the Meeting and will be available to respond to appropriate questions from the shareholders.

The affirmative vote of the holders of a majority of the Ordinary Shares present, in person or by proxy, and voting on the matter is required for the approval thereof.

It is proposed that at the Meeting the following resolutions be adopted:

"RESOLVED, that Kost Forer & Gabbay, a member of Ernst & Young, be appointed as the independent auditors of the Company for the fiscal year ending December 31, 2001.

RESOLVED, that the Board of Directors of the Company be authorized to fix the compensation of the independent auditors, or to delegate the Audit Committee thereof to do so."

The Board of Directors recommends a vote FOR approval of the proposed resolutions.

ITEM 4—CONSIDERATION OF FINANCIAL STATEMENTS

The audited financial statements of the Company for the year ended December 31, 2001 are attached hereto as Appendix B. The Company will hold a discussion with respect to the financial statements at the Meeting.

OTHER BUSINESS

Management knows of no other business to be transacted at the Meeting; but, if any other matters are properly presented to the Meeting, the persons named in the enclosed form of proxy will vote upon such matters in accordance with their best judgment.

By Order of the Board of Directors,

DOUGLAS GOODYEAR

President and Chief Executive Officer

Dated: February 28, 2002



TECHNOLOGY TRANSFER AGREEMENT

This agreement is entered into this 14 of February, 2002

by and between

Tioga Technologies Ltd. An Israeli company having its registered office at 38 Nahalat Yitzhak, Tel Aviv, Israel (hereinafter referred to as "Tioga")

on the first part

and

ST Microelectronics Ltd., an Israeli company having its registered offices at 1 Haomanut St., Netanya (hereinafter referred to as "ST")

and

STMicroelectronics NV, a Dutch company having its registered offices at Strawinskylaan 1725, Amsterdam, the Netherlands, through its Swiss branch having its registered offices at 20 Route de Pre-Bois 1215, Geneva (hereinafter referred to as "ST NV")

on the other part

collectively, sometimes, referred to as "the Parties"

Whereas

Tioga is a leading designer of integrated circuits and systems for xDSL solutions, and has acquired and is pursuing the development of Intellectual Property including patents (whether filed or granted), know-how, trademarks and technology in the field of ADSL, G.lite, HDSL2, SHDSL and VDSL semiconductor products, AFE chips specifications for xDSL semiconductors and related traffic management as described in *Exhibit 1*, which has been delivered to ST by Tioga on the date hereof;

ST desires to acquire, and Tioga agrees to transfer, under the terms and conditions of this Agreement, coownership rights, as described in Section 2.1, to the Transferred Technology, as defined below, and to transfer full ownership of Tioga design wins and Products as hereinafter defined;

ST is aware of the fact that certain Tioga product development projects are funded with grants of the Israeli Office of the Chief Scientist ("OCS"), and is willing to abide by Israeli laws relating to such funding and to bear any costs and obligations associated therewith, including, without limitation, any costs and obligations associated with the transfer and/or license under this Agreement and the royalty payments thereafter as far as they are related to any use by ST of the Transferred Technology and the Transferred design wins and Products.

ST, ST NV and Tioga are executing, on the same date hereof, a Development Marketing and Services Agreement regulating development activities relating, amongst other things, to the PeakADSL, the PeakSHDSL, the PeakVDSL and the Perflow products, to be performed by Tioga on behalf of ST during the term of such agreement.

ST NV and Tioga are executing on the same date hereof an Option Agreement (the "Option Agreement") regulating the possibility, for either party, to sell and purchase Tioga shares or assets, within a certain time frame, according to specific terms and conditions set forth therein.

In consideration of the mutual premises, the parties agree to the terms and conditions of this Agreement.

Article 1: Definitions

Affiliates: shall mean, in the case of Tioga, Tioga Technologies Inc. and Silicon Value (S.V.) Ltd. (in liquidation); and, as applied to ST and ST NV, any other person or entity directly or indirectly controlling, controlled by or under common control with, ST NV.

Agreement: this Technology Transfer Agreement.

Closing Date: shall mean the date set forth in Article 7.3.

Consideration: as defined in Art. 7.

Effective Date: the date hereof.

Intellectual Property or IP: shall mean each of the following as may exist with respect to the Transferred Technology on the Effective Date and any use or application of any part thereof, (a) all inventions, whether patentable or not and whether or not reduced to practice and all Patents listed in Exhibit 1, (b) all copyrightable works, whether registered or unregistered, (c) all mask work rights, (d) all trade secrets, know-how, and confidential business and technical information including ideas, research, development, formulas, compositions, processes, techniques, technical data, designs, drawings, engineering notebooks, industrial models, software and specifications, (e) all Trademarks, (f) all computer software, both source and object code including data and related documentation, flow charts, diagrams, descriptive texts and programs, computer printouts, underlying tapes, computer databases and similar items, and (g) all rights to sue for and remedies against past, present and future infringements of any and all of the foregoing rights or priority and protection of interests therein under the laws of any jurisdiction worldwide, subject to Section 10.

Patents: all patents, patent applications, provisional applications and any similar filings in any jurisdiction as set forth in Exhibit 1.

Products: shall mean existing PeakADSL and Condor integrated circuits, and PeakVDSL, PeakSHDSL and Perflow (partly based on prior generation Condor) integrated circuits still under development including relevant high level architecture, software, design databases, models, prototypes, demonstration boards, reference design and inventories as listed in Exhibit 1; provided, however, that any combination of any of the above that results in a different high level architecture or basic functionality from those of the integrated circuits set forth above shall not be deemed to be a Product hereunder.

Trademarks: the trademarks, trade-names, logos, trademark applications, domain names, and other marks used and/or registered by Tioga in connection with the Transferred Technology on the Effective Date, including (without limitation) those listed in Exhibit 1.

Transferred design wins and Products: all Tioga and Tioga Affiliates' Products and rights under design wins on the Effective Date, as listed in Exhibit 1 hereto.

Transferred Technology: shall mean all of Tioga's and Tioga's Affiliates Intellectual Property as existing on the Effective Date in the fields of (i) SHDSL (ii) VDSL, (iii) ADSL, (iv) G.lite, (v) HDSL2, and (vi) network traffic management applied to xDSL semiconductor products and xDSL chipsets, including as described in Exhibit 1.

Article 2: Transferred Technology

- 2.1 Joint Ownership. Subject to all terms and conditions of this Agreement, at the Closing, Tioga shall transfer to ST, the Transferred Technology on a co ownership basis, without accounting (i.e., subject to any applicable law, each party would have ownership rights, as if such party were the sole owner of such rights), subject only to the specific terms of this Agreement. For the avoidance of doubt ST and, subject to compliance with applicable OCS laws and regulations, its Affiliates, shall have the perpetual right to use without limitation the Transferred Technology for the purpose of developing, having developed, manufacturing and having manufactured, supplying, selling, or otherwise disposing of the Transferred Technology and/or the Products or any derivatives therefrom, subject to Section 2.3, and to Tioga's receipt of the Consideration set forth in Art. 7.1 hereunder, and further subject to the terms of the agreements listed in Exhibit 2 hereof.
- 2.2 Tioga agrees to execute all documentation, which ST deems reasonably necessary to evidence and render effective such transfer of rights, in accordance with applicable legislation, including but not limited for purposes of obtaining any required regulatory consent.
- 2.3 License: Neither ST nor Tioga shall have the right to sell, grant licenses (other than licensing for manufacturing), assign or anyhow dispose of the Transferred Technology to any third party (other than, with the approval of the OCS, to either party's Affiliates) at any time during the one year period following the Effective Date ("Initial Period"), except for ST right to dispose at any time of the Transferred Technology for cross licensing purposes, upon the necessary approval of the OCS.
- 2.4 Disclosure and Deliveries of Documentation: Tioga shall, upon payment of the Consideration as per Art. 7.4.2 and subject to applicable OCS regulations, commence disclosure (by document, access to Tioga offices and sites, or otherwise as ST may from time to time reasonably request), to ST of all documentation and technical information comprising the Transferred Technology, including but not limited to, know-how. All such documentation shall be delivered in English upon the Closing.
- 2.5 Allocation to Affiliates: For the avoidance of doubt, Tioga acknowledges that ST contemplates performing its rights under this Agreement through any of its Affiliates. Promptly after the execution of this Agreement and subject to ST complying, at its expense, with OCS laws, rules and regulations, ST shall allocate tasks and responsibilities to any of its Affiliates as deemed useful for the exploitation of the rights granted hereunder. It is further acknowledged that ST will explore with the OCS the possibility to assign to ST NV the ownership rights transferred hereunder, subject to the necessary license, compliant with OCS' requirements, to enable ST to use and dispose of the Transferred Technology and the Transferred design wins and Products, and to comply with ST's rights and obligations related to such use under this Agreement.
- 2.6 Tioga and ST cooperation: Tioga undertakes to take all necessary measures to obtain the OCS's approval to this Agreement, the Option Agreement and the Development Marketing and Services Agreement. Unless otherwise required by the OCS, ST shall be invited to participate in all proceedings vis-à-vis the OCS. Tioga shall enable ST to review all correspondence with the OCS and to attend all meetings with the OCS, if they occur, in respect of said approval, and shall inform ST on a regular basis on the progress of obtaining said approval. In that connection, Tioga further undertakes to cooperate in good faith with ST, and to provide ST with reasonable assistance in addressing the OCS, in connection with further matters and approvals related to this Agreement. Such assistance may include providing information required by the OCS, and meeting with the OCS, if necessary. ST and ST NV shall execute by the date hereof the OCS undertakings as required by the OCS.
- 2.7 Protecting the Jointly owned Intellectual Property Rights: During the Initial Period, at the request of either owning Party (ST on one hand and Tioga on the other hand), the owning Parties shall meet (either in person or telephonically) to discuss whether to file patent applications in respect of the Transferred Technology, as well as the maintenance of the Patents, Trademarks, and other Intellectual Property rights. A patent application shall be filed on the Transferred Technology unless both Parties mutually agree not to file. For inventions not

leading to patent filing, the Parties shall, unless otherwise agreed, take reasonable measures consistent with the confidentiality provisions of the Agreement to protect the inventions as trade secrets and not to disclose it to third parties. During the Initial Period, patent applications shall be filed in the name of both Parties and ST (unless otherwise agreed) (the "Filer") shall be responsible for filing patents in at least the United States and the most relevant countries in Europe and shall direct and control such filing and the costs, including maintenance for any such patent, will be shared by the co- owners. The Filer shall keep the other owning Party reasonably informed of such activities. Notwithstanding the above, in the event that during the Initial Period a Party refuses to bear the expenses in connection with a patent Filing in the US, or maintenance thereof, the Patent that may issue therefrom shall be exclusively held by, and assigned to the other Party, but the first Party shall have the right to use the Transferred Technology covered by the Patent as if it had held such Patent excluding only the right to sue and/or enjoin a third party.

- 2.8 Enforcement. During the Initial Period, either owning Party may elect to enforce Intellectual Property rights arising from Transferred Technology with the consent of the other, which consent shall not be unreasonably withheld. To the extent that either owning Party elects to enforce such rights and the other Party has incurred expenses (including attorneys' fees) as a result of such enforcement, the Party enforcing such rights shall pay all such expenses for the other Party.
- 2.9 Protection of Joint Ownership following the Initial Period. Following the Initial Period, in the event that neither the Call Option nor the Put Option, as defined in the Option Agreement, are exercised, the Parties shall cooperate in good faith in protecting and enforcing the co-owned Intellectual Property rights, unless differently agreed between the Parties.
- 2.10 Use and disposition. During the Initial Period and subject to the rights of Orckit Communications Ltd. under Orckit's outstanding loan to Tioga, and relevant obligations as resulting from Exhibit 3 (Letter from Orckit), neither ST nor, for so long as ST has not breached the Development, Marketing and Services Agreement, a breach which has not been cured within 90 days following the written notice of such breach, Tioga shall pledge as collateral or otherwise encumber the Transferred Technology with express or implied liens, judgements or adverse claims.

Article 3: Transferred Design Wins and Products

3.1: Transfer of property

Pursuant to the terms of this Agreement, at the Closing, Tioga will transfer ownership to ST of all Transferred design wins and Products. Consequently, Tioga agrees to execute all documentation, which ST deems reasonably necessary to evidence and render effective such transfer of ownership, in accordance with applicable legislation, including but not limited to obtaining of any required third party consent.

3.2: Disclosure and delivery of documentation

Tioga agrees, upon ST request, to provide access to all documentation and technical information pertaining to the design wins and products, constituting Transferred design wins and Products pursuant to the terms of this Agreement. All such documentation shall be delivered in English.

Article 4: Visits and Technical Assistance

In order to foster ST manufacturing utilization of Transferred Technology under Art. 2, and the Transferred design wins and Products under Article 3 as soon as reasonably convenient for Tioga and ST but in any case not prior to the Closing Date, Tioga shall start dispatching employees of its Research and Technology Division or any other person (regarded by Tioga to be competent for the purpose) to such location indicated by ST for starting rendering technical assistance, including all reasonable assistance in making ST personnel and if so indicated by ST, ST Affiliates personnel fully cognizant of Transferred Technology and Transferred design wins and Products. Reciprocally, within the same time frame, Tioga shall permit ST employees or ST Affiliates

employees, as indicated by ST, to start regularly visiting Tioga offices and sites for training in the use of the Transferred Technology and Transferred design wins and Products.

In connection with such visits and training, each party shall remain solely liable for all the salaries, benefits, travel and related costs and expenses of its personnel, as well as all injury to or caused by them.

Tioga shall, thereafter, upon the request of ST, without charge, other than as provided under the Design Services & Marketing Agreement, promptly make available to ST, Tioga technological personnel (reasonably regarded by Tioga to be competent for the purpose) to render technological assistance to be scheduled at Tioga and ST mutual convenience.

Article 5: [Intentionally left in blank]

Article 6: Assistance

Either Party undertakes to provide the other Party with reasonable assistance, as shall be required in order to allow such other Party to perform and comply with its obligations under this Agreement.

Article 7: Consideration

7.1 In consideration for:

- (a) the joint ownership in the Transferred Technology pursuant to Art. 2, and
- (b) the ownership acquired over Transferred design wins and Products pursuant to Art. 3 hereof,

ST shall pay Tioga, on the Closing Date, a lump sum payment of US Dollars 10,000,000 (ten million US Dollars) plus VAT, to the extent applicable (the "Consideration").

Of such Consideration, US Dollars 1,000,000 (one million US Dollars) plus VAT, to the extent applicable, shall be delivered to Tioga on the Effective Date in exchange for Tioga granting co-ownership rights, under identical terms as set forth in section 2 above, to ST with respect to certain VDSL Patents listed in *Exhibit 1.A*, which has been delivered to ST by Tioga on the date hereof, and certain services that Tioga shall provide to ST with respect to an Orckit-specified project. In the event that the transaction set forth herein does not close for any reason whatsoever, Tioga shall be entitled to pay ST US\$700,000 at which time ST shall relinquish all its co-ownership rights over the VDSL Patents set forth above. This provision shall survive the termination of this Agreement.

Tioga will receive the funds by wire transfer, of immediately available funds, to the following bank account:

First International Bank of Israel—FIBI

Israel Bank number: 31 Branch number: 126

Account name: Tioga Technologies Ltd.

Account number: 409026638

7.2 The services to be provided by Tioga pursuant to Art. 4 hereof to ST, shall be paid for by ST pursuant to the terms and conditions of the Development Marketing & Services Agreement.

Article 7.3: Conditions to Closing

The Closing shall take place as soon as possible following the date hereof, and not later than five days following the date on which all the following conditions to Closing have been met:

- (a) The OCS has approved the transaction set forth in this Agreement including also in the Development, Marketing & Services Agreement and the Option Agreement. The parties agree to cooperate and to take all reasonable steps in order to obtain such approval and ST undertakes to execute such undertaking as shall be required by the OCS; and
- (b) From the Effective Date and until the Closing Tioga has not taken any intentional action that would (i) impair its ownership rights to the Transferred Technology and the Transferred design wins and Products or (ii) impair its rights to transfer the Transferred Technology and the Transferred design wins and Products at the Closing; and shall not terminate (or constructively terminate under Israeli law) R&D engineers, including Technical Management as agreed between the Parties, such that the number of engineers decreases at the Closing to below 35 of the persons as agreed in the Development, Marketing and Services Agreement; and
- (c) Tioga has delivered to ST its audited statements for calendar year 2001, such statements being signed by Ernst & Young International in the form of a clean audit opinion and except for description of subsequent events, substantially in the form attached hereto as *Exhibit 4*, with the exception of Tioga balance-sheet representation for the Orckit loan.
- (d) Tioga's shareholders have resolved to approve this Agreement, the Development and Marketing Services Agreement and the Option Agreement.

In the event that any of the conditions set forth above is not satisfied within 45 days from the date hereof or such additional term as required for obtaining Tioga's shareholders resolution according to Art. 14, either party may terminate this Agreement without any liability to it or to the other Party.

Article 7.4: Actions at Closing.

At the Closing, the following transactions shall occur, which transactions and events shall be deemed to take place simultaneously and no transaction shall be deemed to have been completed or any document delivered until all such transactions have been completed and all required documents delivered:

- 7.4.1. Tioga shall deliver to ST the following documents:
 - (a) The OCS approval as per section 7.3;
- (b) The executed assignments, bills of sale, transfers and conveyances of the applicable Intellectual Property to ST;
- (c) Certified copy of the resolution of the Board of Directors of Tioga, and Tioga's Shareholders meeting, authorizing the execution of this Agreement, the Service Agreement and the Option Agreement;
- (d) Opinion of counsel to Tioga dated as of the date of the Closing, in the form set forth in Exhibit 5 hereto;
 - (e) List of R&D Engineers employed by Tioga at Closing.
- 7.4.2. The Consideration shall be delivered by wire transfer of immediately available funds to the account of Tioga, according to Tioga's written instructions.

Article 8: Representations and Warranties

8.1 Tioga and ST each represent and warrant to the other that it is a corporation duly incorporated, existing and in good standing under the laws of its jurisdiction of incorporation; it has the necessary corporate and other

powers and authority to enter into and perform this Agreement and that, subject, in the case of Tioga, to the disclosure in Exhibit 2 hereto, entry into and the performance of this Agreement shall contravene no rights or entitlements of, nor constitute the breach of, any obligation to third parties.

Without limiting the foregoing, subject, in the case of Tioga, to the disclosure in Exhibit 2 hereto, none of the execution, delivery or performance of this Agreement by either party will (i) conflict with the Articles of Association thereof (ii) violate, conflict with or result in any breach of any mortgage, debt instrument, indenture, deed of trust, license, lease, contract or commitment of any kind to which either party is a party or by which it or any of its properties are bound or any judgment, decree, order, law, statute, rule or regulation to which the either party is subject.

- 8.2 Tioga represents and warrants in respect of Transferred Technology and Transferred design wins and Products that except as disclosed in Exhibit 2 attached hereto:
- 8.2.1 it is the sole owner of the Transferred Technology and Transferred design wins and Products whose ownership is transferred hereunder and has good title to all IP information, documentation, rights in software and other matters or materials which are included in the rights transferred to ST and its Affiliates hereunder, free and clear of any and all licenses express or implied, liens, judgments, encumbrances or adverse claims; and that the IP transferred to ST pursuant hereto represents all IP owned by Tioga and its Affiliates as of the Effective Date with respect to the Transferred Technology and Transferred design wins and Products; that, other than in the ordinary course of business and not affecting the rights transferred hereunder, it has not disposed of or granted any rights to Transferred Technology and Transferred design wins and Products within the last twelve months.
- 8.2.2 All employees or sub-contractors, if any, who have contributed to the development of Tioga's Patents have executed appropriate instruments of assignment to Tioga;
- 8.2.3 Tioga has all rights to render the Technical Assistance and other support or performance promised to ST and its Affiliates hereunder; and
- 8.2.4 is not aware of any claim (i.e., a written notice alleging infringement or misuse) regarding the use of the Transferred Technology, or the sale, marketing or any other commercial exploitation of the Products; and
- 8.2.5 ST and its Affiliates will not be required to make any payment to any person or entity for or in connection with the transfer and the use (in accordance with Section 2.1) of the Transferred Technology and the transfer of the Transferred design wins and Products, except for the payments to Tioga and OCS provided hereunder.
- 8.2.6 Other than the OCS' approvals stated in Article 7.4.1 (a), no consent, approval, order, license, permit, action by, or authorization of any governmental authority on the part of Tioga is required that has not been obtained by Tioga prior to the Closing in connection with the valid execution, delivery and performance of the Agreement.
- 8.2.7 Other than the assignments attached hereto in Exhibit 2, and the Agreements listed in Exhibit 2, there have been no assignments, transfers or conveyances, sales, leases, options or licenses of any Intellectual Property by Tioga other than in the ordinary course of Tioga's business and not affecting the rights transferred hereunder.
- 8.2.8 The PeakADSL Product conforms in all material respects with the specifications attached hereto in Exhibit 1. Other than the PeakADSL integrated circuit, which has been taped out but is in debugging process and has not been commercially available, all other Products are still in development stage except for Condor whose

project was not completed and has been abandoned. Without derogating from Tioga's representations hereunder, ST confirms that it has evaluated the Transferred Technology and the Products, as presented by Tioga, over a period in excess of six months.

For the avoidance of doubt, Tioga has not conducted any investigation, including but not limited to any patent searches, with respect of the existence of third party's rights in the Transferred Technology, and/or Transferred design wins and Products.

The representations and warranties set forth in this Article 8 are exclusive and in lieu of all other warranties or conditions, express or implied, either in fact or by operation of law, statutory or otherwise, including but not limited to warranties, terms or conditions of merchantability, fitness for a particular purpose, satisfactory quality, correspondence with description, and non-infringement, all of which are expressly disclaimed.

Article 9: Tioga Covenants

Tioga hereby covenants that it has not and it shall not directly or indirectly, during the Initial Period, grant to any third party any express or implied right pertaining to the Transferred Technology.

Article 10: Intellectual Property Infringement

10.1 Tioga hereby agrees to indemnify and hold ST and ST Affiliates as well as ST and ST Affiliates officers, agents, directors, employees, independent contractors, consultants and successors harmless from and against any and all liabilities, direct losses, claims, costs, damages, demands, penalties or other expenses (including reasonable attorney's fees and other legal expenses), awards or recoveries, finally assessed by a court of competent jurisdiction, actually paid (collectively, "Damages") and specifically resulting from intellectual property infringement by the Transferred Technology or the Products, by reason of ST's manufacture, use, sale or otherwise disposal of the Transferred Technology and Products under the rights conferred hereby, provided however that, (a) ST shall be entitled to indemnification only if the aggregate Damages exceed fifty thousand dollars (US\$50,000) (the "Threshold Amount"), provided that at such time as the amount to which ST is entitled to be indemnified exceeds the Threshold Amount, ST shall be entitled to be indemnified up to the full amount of the Damages, including the Threshold Amount, and (b) Tioga's duty to indemnify shall be subject to (i) ST promptly notifying Tioga in writing of any notice ST receives claiming or asserting infringement of any such third party's intellectual property right to which this indemnity applies, (ii) ST rendering all reasonable assistance, at its expense, to Tioga in the defense or settlement of such suit, which defense shall be under the exclusive control and settlement of Tioga, (iii) the following solutions shall not have sorted out a reasonable commercially or technically viable solution for ST and Tioga: (x) best efforts for assisting each other in negotiating a licensing agreement with such third party, (y) ST's best commercial efforts to negotiate a cross licensing agreement with such third party, and (z) Tioga offering modification or work around for the alleged infringed use of such intellectual property.

Such indemnification shall not apply to the extent any claim of infringement is caused by any modification or any gross negligence, intentional wrongful acts, omissions where there is a duty to act, attributable to ST, its Affiliates or any of its licensees.

10.2 As set forth in the definition of IP above, ST shall have the right, in ST's name and at ST's expense, to sue third parties for infringement of Patents and misappropriation of the Transferred Technology and unpatented improvements granted under the Services & Marketing Agreement, and Tioga shall reasonably cooperate and assist ST in connection with any such suit; provided, however, that Tioga shall not be held liable for any indemnification obligation under this Agreement with respect to any Damages paid with respect to any party so sued. All damages, awards, and settlement proceeds in any such suits shall be ST's.

10.3 To the extent permitted by the applicable law, Tioga's maximum aggregate liability under this Art. 10 shall be limited to and shall not exceed an aggregate amount of USD\$5,000,000—from the Effective Date and until the first anniversary of this Agreement, USD\$3,000,000—from the first anniversary and until the second anniversary of this Agreement, and USD\$1,000,000—from the second anniversary to the third anniversary of this Agreement, after which no indemnification shall apply.

Article 10.4: ST Indemnification

10.4.1 ST hereby shall solely be responsible for claims made, by reason of ST's manufacture, use, sale or other disposal of the Transferred Technology and Products, subject to the provisions of Art. 10.1 to Art. 10.3 above. In the event any claim relating to the manufacture, use, sale or other disposal by ST of the Transferred Technology and Products is made by a third party against Tioga, ST shall defend such claim or seek a compromise at its expense provided however that, (i) Tioga shall promptly notify ST in writing of any notice Tioga receives claiming or asserting infringement of any such third party's intellectual property right to which this indemnity applies, (ii) Tioga shall render all reasonable assistance, at its expense, to ST in the defense or settlement of such suit, which defense shall be under the exclusive control and settlement of ST.

Such indemnification shall not apply to the extent any claim of infringement is caused by any modification or any gross negligence, intentional wrongful acts, omissions where there is a duty to act, attributable to Tioga, its Affiliates or any of its licensors.

10.4.2 To the extent permitted by the applicable law, ST's maximum aggregate liability under this Art. 10 shall be limited to and shall not exceed an aggregate amount of USD\$5,000,000—from the Effective Date and until the first anniversary of this Agreement, USD\$3,000,000—from the first anniversary and until the second anniversary of this Agreement, and USD\$1,000,000—from the second anniversary to the third anniversary of this Agreement, after which no indemnification shall apply.

Article 11: Indemnification

11.1 Tioga, at its sole expense, shall defend, indemnify and hold ST and ST Affiliates as well as ST and ST Affiliates officers, agents, directors, employees, independent contractors, consultants and successors, harmless from and against any and all Damages pertaining to any material misrepresentations made by Tioga under this Agreement, excluding any matters relating to intellectual property which shall be governed solely by Section 10. Tioga shall promptly reimburse ST, on demand, for any and all Damages incurred by the indemnified parties to which this indemnity applies, provided however that, (a) ST shall be entitled to indemnification only if the aggregate Damages exceed the Threshold Amount, provided that at such time as the amount to which ST is entitled to be indemnified exceeds the Threshold Amount, ST shall be entitled to be indemnified up to the full amount of the Damages, including the Threshold Amount, and (b) Tioga's duty to so indemnify shall be subject to (i) ST promptly notifying Tioga in writing of any notice ST receives of any such third party claim relating to the indemnity set forth in this Section 11, and (ii) ST rendering all reasonable assistance, at its expense, to Tioga in the defense or settlement of such suit, which defense shall be under the exclusive control and settlement of Tioga.

To the extent permitted by the applicable law, Tioga's maximum aggregate liability under this Art. 11 shall survive for a period of two years from the date hereof and shall be limited to and shall not exceed US\$2,000,000.

11.2 ST's sole and exclusive remedy and Tioga's, its officers, agents, directors, employees, independent contractors, consultants and successors' maximum liability, under this Agreement shall be limited to the provisions, survival and amounts set forth in Articles 10 and 11 herein. Notwithstanding the foregoing, all indemnification obligations set forth in Sections 10 and 11 shall expire upon the exercise and consummation of the Call Option or the Put Option.

Article 12: Tioga Marketing Selected Employees

ST and Tioga agree that ST will be entitled to hire selected employees from Tioga and its Affiliates not exceeding two, for marketing activities. Tioga undertakes to make its best efforts for assisting ST during the selection process of each employee and procuring the transfer of such employees to ST or any ST Affiliate as decided by ST.

Article 13: Confidentiality, press release and filings

Article 13.1: Confidentiality

During the Initial Period each party shall keep all non public information related to the Transferred Technology in the strictest confidence and shall not disclose such information to any third party (other than to Affiliates or in the ordinary course of business and on a strict need to know basis). Tioga shall not disclose, at any time, to any third party and shall take all necessary measures to ensure the confidentiality of any information related to the Transferred design wins and Products. The above shall not apply to information, which is now, or hereafter becomes, through no act or failure to act on the part of the disclosing party, publicly known or available.

Article 13.2: Press Release and Filings

On the date hereof Tioga shall issue a press release with respect to the overall transactions contemplated herein, including the Option Agreement and the Development Marketing and Services Agreement, the form of which is attached hereto under *Exhibit* 6.

Article 14: Term

The term of this Agreement shall commence on the Effective Date and shall expire upon the first to occur of the following events:

- (a) By either party, if the OCS approval or any other Closing condition set forth in section 7.3, is not obtained within 45 days from the date hereof, or such additional term as required for obtaining Tioga's shareholders resolution;
 - (b) mutual agreement between the Parties;
- (c) termination served by either party in the event of demonstrated material failure by the other party to comply with its contractual obligations under this Agreement, which failure shall not have been cured within 90 days from written notice given by the terminating party to cure such failure.

Survival: The provisions of sections 2, 3, 8, 10, 11, 13.1 and 15 shall remain in full force and effect following termination of this Agreement after the Closing, as aforementioned, in accordance with their respective terms.

Article 15: Miscellaneous

- 15.1 The failure of either party to assert any of its rights hereunder, shall not be deemed to constitute a waiver of that party's right thereafter to enforce each and every provision of this Agreement in accordance with its terms.
- 15.2 All notices, reports, and other communications to either party pursuant to this Agreement shall be made in writing and by certified or registered first-class mail, return receipt requested and postage prepaid, or by courier, or hand-delivery, to the address set forth below or to such other addresses as the parties may designate by written notice in accordance with the terms hereof from time to time. Each such notice, report, or other communication shall be effective upon receipt.

If to ST:

If to Tioga:

Attention to: STMicroelectronics

Route de Pré-Bois, 20

1215 Geneva Switzerland

General Management, Wireline Division

With copy to: General Counsel

Fax + 41 22 929 5878 STMicroelectronics NV Route de Pré-Bois, 20

1215 Geneva Switzerland

Switzeria

Tioga Technologies Ltd. 38 Nahalat Yitzhak St.

Tel Aviv, Israel

Telephone: 03-6962121 Facsimile: 03-6965678

Attn: Itzhak Tamir, Chairman

With a copy to: Sharon A. Amir

Naschitz, Brandes & Co.

5 Tuval St. Tel Aviv, Israel.

- 154.3 This Agreement may be executed in several duplicate originals in the English language, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
- 15.3 This Agreement embodies the entire agreement of the Company and ST with respect to all matters addressed in this Agreement and supersedes all prior agreements, understandings and communications, whether written or oral, between the parties or either of them, with respect to the subject matter hereof. No modification or amendment of this Agreement shall be effective, unless it is in writing and executed by a duly authorized representative of each party.
- 15.4 Words and defined terms denoting the singular number include the plural and vice versa and the use of any gender shall be applicable to all genders.
- 15.5 The paragraph headings are for the sake of convenience only and shall not affect the interpretation of this Agreement.
 - 15.6 The recitals hereto form an integral part of this Agreement.
- 15.7 ST NV hereby guarantees and assumes responsibility for all of ST's obligations hereunder towards the OCS.

Article 16 Governing law and Jurisdiction

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York without giving effect to conflict of law provisions. Any and all disputes between the parties hereto shall be submitted to arbitration according to the Rules of Conciliation and Arbitration laid down by the International

Chamber of Commerce by three arbitrators appointed in accordance with said Rules. The arbitration shall be conducted in the English language and all hearings shall be held in New York.

STMicroelectronics Ltd.
By:
Name:
Title:
_
_

DEVELOPMENT MARKETING AND SERVICES AGREEMENT

This DEVELOPMENT MARKETING AND SERVICES AGREEMENT (the "Agreement") is effective as of February 14, 2002, by and between:

- 1. **Tioga Technologies Ltd.**, a public company incorporated under the laws of the State of Israel with its registered offices at 32 Nahalat Yitzhak St., Tel Aviv, Israel ("Tioga" or the "Company"); and
- 2. **ST Microelectronics Ltd.**, a company incorporated under the laws of the State of Israel with its registered offices at 1 Haomanut St., Netanya, Israel ("ST").
- 3. STMicroelectronics NV, a Dutch company having its registered offices at Strawinskylaan 1725, Amsterdam , the Netherlands, through its Swiss branch having its registered offices at 20 Route de Pre-Bois 1215, Geneva (hereinafter referred to as "ST NV")

WITNESSETH

WHEREAS, in the frame of a larger cooperation between the parties as described below, ST under the guidance and responsibilities of ST NV wishes to engage Tioga to provide certain R&D, marketing and other technical assistance services described in this Agreement, and Tioga is willing and able to provide such services on the terms and conditions set forth herein; and

WHEREAS, in particular, the parties are willing to closely cooperate on xDSL R&D projects with the following common goals, in the frame of business targets as indicated by ST:

- To harmonize work methodology and xDSL product development flow
- To create the prerequisites for long term partnership between the parties; and

WHEREAS, ST is aware of the fact that some of Tioga's xDSL product development projects are funded with grants of the Israeli Office of the Chief Scientist ("OCS"), and agrees to abide by Israeli laws relating to such funding; and

WHEREAS, this agreement is complementary to such other agreements that are concurrently executed, i.e. a Technology Transfer Agreement (the "TTA") and Option Agreement (the "Option Agreement") that shall become effective altogether upon OCS approval and other conditions as provided under Art. 7.3 of the TTA.

NOW THEREFORE, the parties hereto agree as follows:

1. Engagement of Tioga

1.1 Subject to the condition set forth in Section 1.6, Tioga hereby undertakes to provide, through a Qualified Workforce composed of up to 55 R&D engineers as resulting from Art. 1.4, during the Term (as defined below), R&D and marketing services in the xDSL field, as shall be determined by ST from time to time (the "Services"), including, without limitation, Services in the following areas:

Design-Lab/Engineering Services:

- 1) Porting of Tioga IP and Products on ST technologies.
- Integration of ST IP (AFE and Line Drivers) on Tioga Peak ADSL reference design.
- 3) R&D services on new products including
 - Engineering activity supporting products available at the time of signature of all the agreements as resulting from the preamble herein above and to be sold under ST trademark until items 1 and 2 above have been completed.

- · System, architecture and ICs design
- ICs and platform evolution for products as per 1) and 2) and new products outcoming from R&D services.
- 4) Products, marketing and filed application support, including reference design for products as per 1) and 2) and new products outcoming from R&D services, which may include but will not be limited to PeakVDSL, PeakADSL, PeakSHDSL and Perflow integrated circuits currently in development, including relevant software, design databases, models, prototypes, demonstration boards and reference design.
- 5) Maintenance (such as bugs fixing, optimization, improvements etc.) on Transferred Technology and Products as defined under the TTA, either asked by ST or made by Tioga independently.

Marketing Services:

6) Marketing support for products as per 1) and 2) and new products outcoming from R&D services.

Other technical assistance:

- 7) Support in dealing with Fujitsu Microelectronics in the temporary supply phase.
- 1.2. Tioga shall provide the Services according to a high degree of care and at a high level of professional standards, in compliance with all applicable law and in accordance with ST's specifications and instructions in the frame of the overall scope as described in the preamble.
 - The parties further undertake to provide each other any necessary assistance, if so requested, with respect to any specific requirements raised by any party in connection with the activities to be rendered hereunder.
- 1.3. The parties will establish a Steering Committee composed of two members of each party, having supervision and technical empowerment for leading the Services' cooperation. Such representatives will initially be: for Tioga, Doug Goodyear and David Voschina, and for ST Pietro Palella and Domenico Rossi. At any time, either party shall be entitled to change any of its respresentatives upon written notice to the other party.
- 1.4 Tioga will organize a Qualified Workforce composed of up to 55 R&D engineers, as resulting from separate agreement between the Parties, and will make all commercial best efforts not to have such headcount decrease. If the headcount decreases below 35 persons of the R&D engineers, ST will be entitled to renegotiate or terminate this Agreement, in accordance with Section 4. Tioga also commits to make all commercial best efforts for ensuring that, out of the list agreed by the Parties, the Technical Management as separately agreed between the Parties shall remain with Tioga for the duration of this Agreement. Any replacement of the Technical Management will be coordinated with ST.
- 1.5 The relationship between Tioga and ST established by this Agreement is that of independent contractors, and nothing in this Agreement shall be construed:
 - (a) to constitute the parties (or any officer, employee or agent of the parties) as principal and agent or employer and employee.
 - (b) to allow either party to create or assume any obligation on behalf of the other party for any purpose whatsoever or to represent to any person that such party has any right or power to enter into any binding obligation on the other party's behalf.
- 1.6 This Agreement shall become effective upon the Closing of the Technology Transfer Agreement.

2. Consideration

2.1. In consideration for Tioga's performance of the Services pursuant to this Agreement, ST shall pay Tioga US\$2 million, adjusted in accordance with Section 2.2 below, plus VAT, if any (the "Quarterly Fee"), for each of the five periods of three months each in which the Services are granted, commencing on January 15, 2002 (the "Execution Date") (each such three months period, a "Quarter") to be paid to Tioga by wire transfer, by no later than the third day of each Quarter, subject to Tioga providing ST with reasonable written evidence that the payment would be required for the upcoming quarter in advance, also based on the data concerning the allocated resources on each project as resulting from the monthly reports provided in accordance with the provisions of art. 2.3 hereunder (in the event that the above conditions are not met for any given quarter, the Quarterly Fee will be paid in three equal installments, on last day of each month comprising such Quarter), provided that: (i) the initial Quarterly Fee of USD 2 million shall be paid upon Closing of the TTA, provided, that the condition set forth in Section 1.6 shall have been met and (ii) the fifth Quarterly Fee shall be paid monthly in three equal installments, provided that the payment for the first month shall be paid within three days of the first anniversary of the Execution Date (i.e., January 18, 2003), the payment for the second month shall be paid within 3 days of the beginning of the month thereafter (i.e. February 18, 2003), and the remaining payment shall be made within 3 days of the last day of the quarter (i.e. April 18, 2003); provided that if the Put Option is exercised following such payment, then the Option Consideration, as set forth in the Option Agreement, will be reduced by the amount of such paid fifth Quarterly Fee.

Tioga will receive the funds by wire transfer of immediately available funds to the following bank account:

First International Bank of Israel - FIBI

Israel Bank number: 31 Branch number: 126

Account name: Tioga Technologies Ltd.

Account number: 409026638

- 2.2. In the event that, during each quarter, the average number of engineers employed by Tioga for the purposes of providing the Services (the "Qualified Workforce"), as evidenced by a written confirmation from Tioga's Chief Executive Officer according to Art. 2.3, is less than 55 (fifty five), the Quarterly Fee payable with respect to the upcoming Quarter shall be reduced, unless otherwise expressly agreed by ST so as to equal (i) US\$2 million, multiplied by (ii) the average number of the Qualified Workforce on such quarter, divided by fifty five.
- 2.3. Within 1 day following the end of each month, Tioga's Chief Executive Officer will provide an advancement report detailing achievements and encountered problems and detailing by program the allocated resources.
- 2.4. Tioga acknowledges that the calculation of the Quarterly Fees is based on the assumption that Tioga shall employ or otherwise engage at least five non-technical personnel including CEO, CFO, HR coordinator and two secretaries; and the assumption that Tioga receives the OCS funding for which it has applied in respect of calendar year 2002. In the event that such funding is not granted, the parties will negotiate in good faith how to make up for such funding.

3. Proprietary Rights

3.1. Subject to ST's compliance with the terms of this Agreement, the design wins and products (i.e. integrated circuits including relevant high level architecture, software, design databases, models, prototypes, demonstration boards, reference design and inventories; provided, however, that any

combination of any of the above that results in a different high level architecture or basic functionality from those of the integrated circuits set forth above shall not be deemed to be a product hereunder) developed by the Qualified Workforce in the course of providing the Services for such relevant quarter, shall be solely owned by ST or such ST entity in accordance with art. 3.4 hereinafter. The parties will take all necessary steps to document the transfer of the deliverables set forth in this Section 3.1.

- 3.2. Notwithstanding the above, all rights, title and interests to the intellectual property developed by the Qualified Workforce ("Joint Foreground") in the course of providing the Services, shall vest in and be jointly owned by Tioga and ST, and both Parties will be equally entitled to use Joint Foreground subject to the provisions of Section 3.3 below, provided, however, that if the Option Closing (as defined in the Option Agreement) takes place all such intellectual property will vest solely with ST and Tioga shall enter into all agreements and sign all documentation necessary to evidence such sole ownership rights of ST.
- 3.3. Unless differently regulated as provided under Art. 1.4 of the Option Agreement, Tioga's rights on Joint Foreground, shall be subject solely to the following:
 - In case of direct or indirect Change of Control over Tioga capital between the Execution Date and 24 months after the earlier of the termination of this Agreement and January 15, 2003, by a third party controlled by, controlling or under common control with, directly or indirectly, a company in the semiconductor or xDSL business ST will automatically acquire, upon closing of the transaction leading to the Change of Control, exclusive rights of use on Joint Foreground and Tioga's use of the Joint Foreground will be restricted to internal purposes only (i.e. for Tioga's implementation), unless Tioga pays to ST a one-time fee of US Dollars 4 million, after which time Tioga shall co-own the Joint Foreground without any restriction whatsoever with respect to this Section 3.3(a). For the purpose of this Agreement, of the TTA and the Option Agreement, "Control" shall mean the direct or indirect ownership of 50% or more of the shares entitled to vote upon election of directors or persons performing similar functions or having the right or the power to elect a majority of the members of a similar governing board which has decision making power over the business entity; "Change of Control" shall mean any change of Control over Tioga as above defined, whatever is the mechanism through which such change may be effected. For the purpose of this Art. 3.3 (a), (i) the sale, of all of Tioga's Intellectual Property and substantially all of its R&D personnel, collectively, whether as a single sale or a series of related sales to one or more parties under direct or indirect common control, and (ii) any license granted by Tioga or its successors to any third party, directly or indirectly put under the same control or controlling directly or indirectly Tioga or its successors shall be deemed to be a Change of Control.
 - b) Tioga shall not commercially exploit the Joint Foreground from the Execution Date until the earlier of January 15, 2003 or termination of this Agreement. After that term has expired, in the event Tioga commercially exploits the Joint Foreground through grant of license, sale of ownership or otherwise, except (i) as set forth in (a) above, (ii) for its own use, production and sale, and (iii) a license granted to a third party in the ordinary course of business for Tioga's implementation of Joint Foreground, then Tioga will be entitled to do so, provided that Tioga shall pay to ST an access fee equal to 50% of the license fee, sale amounts and/or other proceeds, excluding royalties and NREs, negotiated and agreed within 12 months from January 15, 2003 (or the termination of this Agreement, if earlier) due and payable to ST upon actual payment to Tioga, even if such payment to Tioga should occur after such 12 months from January 15, 2003 (or the termination of this Agreement, if earlier). Upon agreement of the parties the present access fee may be reduced on a specific case by case basis, to be negotiated separately. The aggregate fees under this Section 3.3(b) shall not exceed US\$4 million.

- 3.4. It is agreed that ST will explore with the OCS the possibility to assign to ST NV the ownership rights of ST under this Agreement, subject to the necessary license to ST, compliant with OCS' requirements, to enable ST to perform this Agreement. Each party hereto will bear all expenses and royalty requirements under applicable laws and regulations with respect to sales, licenses or any revenue generated by such party on Jointly Owned Foreground. Other than the OCS' approvals stated in this article 3.4, no consent, approval, order, license, permit, action by, or authorization of any governmental authority on the part of Tioga is required that has not been obtained by Tioga prior to the Closing in connection with the valid execution, delivery and performance of the Agreement
- 3.5. Except for the limitations set forth in *Exhibit 1*, and such other licenses and consents as shall be required for the purpose of providing the Services, and agreed to by ST, Tioga hereby represents and warrants that it is fully entitled to transfer to ST xDSL design wins and xDSL products developed by the Qualified Workforce to the selected ST entity according to art. 3.4 hereinabove.
- 3.6. Tioga also undertakes to take all necessary measures to obtain the OCS' approval to this Agreement, and to the Technology Transfer Agreement. In that connection, Tioga further undertakes to reasonably cooperate with ST and provide ST with assistance, which may include, without limitation, providing information required by the OCS, and meeting with the OCS, if necessary.
- 3.7. This Section 3 shall survive the termination of this Agreement; provided, however, that a breaching party can not invoke this Section to its benefit except as provided under Art. 4.3.

4. Term and Termination

- 4.1 Subject to Section 1.6 above, the term of this Agreement shall commence on the Execution Date and shall remain in force until the earlier of (i) April 15, 2003 and (ii) the Option Closing, as defined in the Option Agreement (the "Term").
- 4.2 Notwithstanding the aforesaid, (i) ST shall be entitled to terminate this Agreement, upon a 90 day written notice, in the event that Tioga's headcount decreases below 35 persons as indicated in art.1.4; provided, however that such termination shall have to be effected within 7 business days of the end of the month in which Tioga first notifies ST of such decrease and provided further that in the event that the headcount decreases below 25, the 90 day period shall be reduced to 30 days, (ii) ST shall also be entitled to terminate forthwith this Agreement in case of Change of Control over Tioga by any third party, and (iii) either party may terminate this Agreement in the event of a demonstrated material failure by the other party to comply with its contractual obligations under this Agreement, the TTA or the Option Agreement, which failure shall not have been cured within 90 days from a written notice given by the terminating party to cure such failure. ST shall also be entitled to terminate forthwith this Agreement if, as a consequence of Tioga filing a petition or application for bankruptcy or voluntary liquidation, being declared insolvent, becoming subject to final judicial decision under Israeli bankruptcy or insolvency law, or suffering the appointment by the court of a receiver or trustee over all or substantially all of its assets or properties, which is not removed within 90 days, Tioga will not be able any longer to secure the Services to ST according to the terms of this Agreement.
- 4.3 In case of termination of this Agreement for any reason whatsoever other than for ST breach not cured within 90 days, the Joint Foreground developed as of the date of such termination will remain subject to the rights of use as provided under Art. 3 of this Agreement and Art. 1.4 of the Option Agreement.
- 4.4 In case ST unilaterally fails to perform its payment obligations hereunder without cause and does not cure its failure within 90 days, Tioga shall be released from its obligations provided under Art. 2.3 of the TTA; in case Tioga unilaterally fails to perform its Services hereunder without cause and does not cure its failure within 90 days, then ST shall be released from its obligations under Art. 2.3 of the TTA.

5. Location

The Services shall be mainly performed at Tioga's facilities in Israel, including Tioga availability to accept, following ST's coordination with Tioga, to have ST employees permanently established at Tioga premises or, for specific missions, may also be performed at such other location at ST or customers as indicated by ST. It is agreed that either party's employees will comply with the procedures and policies of the Tioga site or ST site where the Services shall be rendered.

6. No Solicitation

For so long as this Agreement is in force and for a period of one year following the termination or expiration thereof, and provided that the put or call options are not exercised, ST shall not, directly or indirectly, solicit, endeavor to entice away from Tioga any person or organization who is employed by the Company during the Term, unless upon Tioga's prior written approval. It is understood that media advertisement for job posting will not be considered as solicitation. Upon receipt by ST of Tioga Notice of No Closing pursuant to Art. 1.4 or Art. 4.2. (d) of the Option Agreement, ST shall be immediately released from any obligation hereunder.

Notwithstanding the above, Tioga hereby grants ST the right to hire up to two selected employees of Tioga for marketing activities, during the Term of this Agreement.

The provisions of this clause shall survive the termination of this Agreement; provided, however, that a breaching party can not invoke this clause to its benefit.

7. Non Compete

In view of the valid consideration provided by ST under this Agreement, for a period of one year after the signature of this Agreement, Tioga shall not, directly or indirectly, conduct any development activity that competes with ST in the xDSL field.

The provisions of this clause shall survive the termination of this Agreement; provided, however, that a breaching party can not invoke this clause to its benefit.

8. Records

Tioga shall keep records of work undertaken in relation to the provision of the Services and, at ST's request, shall make them reasonably available for inspection and/or provide copies to ST.

9. Assignment

Neither party shall have the right or power to assign any of its rights or delegate the performance of any of its duties under this Agreement, without the prior consent of the other party, provided, however, that such consent shall not be required for a party to assign or transfer its rights under this Agreement to an Affiliate, a successor to all or substantially all of such party's assets or business relating to the subject matter of this Agreement, whether by merger, reorganization, operation of law or by the sale or transfer of all or substantially all of such party's assets or business relating to the subject matter of this Agreement, provided such successor shall assume in writing all of such party's obligations under this Agreement.

10. Confidentiality

During the term of this Agreement and for three (3) years after its termination or expiration, each party shall keep all information related to the services rendered hereunder in the strictest confidence and shall not disclose such information to any third party (other than to Affiliates) provided, however, that ST will be entitled to disclose, directly or through Tioga, on a need-to-know basis and subject to customary confidentiality

undertakings, any information, as deemed necessary, to business associates. Tioga shall not disclose, at any time, to any third party and shall take all necessary measures to ensure the confidentiality of any information related to the design wins and Products made hereunder for ST. The above shall not apply to information which is now, or hereafter becomes, through no act or failure to act on the part of the disclosing party, publicly known or available.

11. Compliance with Laws

Each party shall at all times and at its own expense:

- (a) strictly comply with all applicable laws, rules, regulations and governmental orders, now or hereafter in effect, relating to its performance of this Agreement;
- (b) maintain in full force and effect all licenses, permits, authorizations, registrations and qualifications from all applicable governmental departments and agencies, to the extent necessary to perform its obligations hereunder.

12. General Provisions

- 12.3 The failure of either party to assert any of its rights hereunder, shall not be deemed to constitute a waiver of that party's right thereafter to enforce each and every provision of this Agreement in accordance with its terms.
- 12.4 All notices, reports, and other communications to either party pursuant to this Agreement shall be made in writing (including any facsimile transmission or similar writing) and confirmed either by certified or registered first-class mail, return receipt requested and postage prepaid, by courier, or hand-delivery, to the address set forth at the beginning of this Agreement or to such other addresses as the parties may designate by written notice in accordance with the terms hereof from time to time. Each such notice, report, or other communication shall be effective upon receipt.
- 12.5 This Agreement may be executed in several duplicate originals in the English language, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
- 12.6 This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York without giving effect to conflict of law provisions. Any and all disputes between the parties hereto shall be submitted to arbitration according to the Rules of Conciliation and Arbitration laid down by the International Chamber of Commerce by three arbitrators appointed in accordance with said Rules. The arbitration shall be conducted in the English language and all hearings shall be held in New York.
- 12.7 This Agreement embodies the entire agreement of the Company and ST with respect to all matters addressed in this Agreement and supersedes all prior agreements, understandings and communications, whether written or oral, between the parties or either of them, with respect to the subject matter hereof. No modification or amendment of this Agreement shall be effective, unless it is in writing and executed by a duly authorized representative of each party.
- 12.8 Words and defined terms denoting the singular number include the plural and vice versa and the use of any gender shall be applicable to all genders.
- 12.9 The paragraph headings are for the sake of convenience only and shall not affect the interpretation of this Agreement.
- 12.10 The recitals hereto form an integral part of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives, effective as of the day and year first written above.

Tioga Technologies Ltd.	STMICROELECTONICS LTD.
By:	By:
Name:	
Title:	
STMICROELECTONICS NV. By:	
Name:	
Title:	
1100·	

OPTION AGREEMENT

THIS OPTION AGREEMENT (this "Option Agreement") is entered into as of February 14, 2002, by and between STMicroelectonics NV, a Dutch corporation with registered office at Strawinskylaan 1725, Tower B, 1077 XX Amsterdam, The Netherlands corporation ("ST", or the "Purchaser") and Tioga Technologies Ltd., a public company registered under the laws of the State of Israel with its registered offices at 32 Nahalat Yitzhak St., Tel Aviv, Israel ("Tioga", or the "Company").

WITNESSETH

WHEREAS, concurrently with the execution of this Option Agreement, the parties shall have entered into (i) a Technology Transfer Agreement (the "TTA"), and (ii) a Development, Marketing and Services Agreement (the "Services Agreement") that shall become effective altogether upon OCS approval and other conditions as provided under art. 7.3 of the TTA;

WHEREAS, subject to the approval of its shareholders and the other terms and conditions set forth herein, Tioga is willing to grant the Purchaser and the Purchaser wishes to receive from Tioga the right to cause Tioga to merge (the "Merger") with a wholly owned subsidiary of ST (the "Call Option"), and ST is willing to grant Tioga and Tioga wishes to receive from ST the right to cause ST to effect the Merger (the "Put Option"), all under the terms and conditions set forth herein. ST, if it has reasonable financial and/or corporate preferences to effect an Assets Deal, may also elect, after having informed Tioga, that the transaction be effected, subject to all necessary approvals, as a sale of Tioga's assets and assumption of certain Tioga Assumed Liabilities as defined below (the "Assets Deal") and Tioga agrees to grant ST such right. "Assets" shall mean all of Tioga's and its subsidiaries' assets and properties of every kind, nature and character (whether real, personal or mixed, whether tangible or intangible, whether absolute, accrued, contingent, fixed or otherwise and wherever situated), including the goodwill related thereto, operated, owned, licensed or leased by such person, and any accounts and notes receivable, real estate, equipment, inventory, goods and intellectual property, excluding any cash or cash equivalents.

NOW THEREFORE, the parties hereto agree, subject to the Closing of the TTA, as follows:

SECTION 1. DESCRIPTION OF TRANSACTION.

- 1.1 Call Option. Subject to all requirements and consents required under Israeli law (including shareholder approval, if needed) and under SEC regulations, Tioga hereby grants ST the right, exercisable, in whole but not in part, at any time during the Call Option Exercise Period (as defined below), to effect the Assets Deal or the Merger. The Merger shall be in the form of a cash merger, pursuant to which Tioga will merge into a wholly owned subsidiary of ST in return for the Option Consideration (as defined below).
- (a) Call Option Exercise Period. The period in which the Call Option may be exercised by ST shall commence on the closing of the TTA (the "TTA Closing") and shall continue until January 15, 2003 (the "Call Option Exercise Period").
- (b) Exercise of the Call Option. The Call Option shall be exercisable by delivery of a written notice of exercise by ST to Tioga substantially in the form attached hereto as *Exhibit 1.1(b)* (the "Notice of Exercise of the Call Option"), such Notice of Exercise of the Call Option to be delivered to Tioga by no later than 8:00 p.m. (Israel time) on the last day of the Call Option Exercise Period.
- (c) "Option Consideration" shall mean (i) in case of Merger: US\$12,000,000 adjusted by the aggregate amount, as of the Closing Date, of Net Financial Indebtedness as defined below and for any amount required to settle the outstanding Tioga obligation related to the Orckit convertible debt. At Closing, Orckit shall

assume, and Tioga shall procure Orckit to assume, all obligations connected to the Tioga/Orckit convertible debt and ST shall pay the corresponding amount required to Orckit, as deducted from the Option Consideration. For this purpose, "Net Financial Indebtedness" shall mean the cumulated balance of Tioga's consolidated financial indebtness (including overdrafts, actually drawn amounts with respect to revolving credit facilities, long term and short term debt, capital leases and any other outstanding amount requiring either payment of interest thereon or repayment of a principal amount) plus unfunded employee-related liabilities, accounts receivable sold not yet expired and any overdue current liabilities that have not been paid when due under their respective original terms of payment, if any, net of cash and cash equivalents. The balance of each above mentioned caption is determined in accordance with generally accepted accounting principles in the United States ("US GAAP") on a basis consistent with the audited consolidated financial report of Tioga for the fiscal year ended December 31, 2000.

- (ii) in case of Assets Deal: In case of Asset Deal: US\$ 12,000,000 reduced by the aggregate amount, as of Closing Date, of unfunded employee-related liabilities, overdue current liabilities that have not been paid under their respective original terms of payment and of accounts receivable sold not yet expired. Should for any reason ST assume at Closing Date any liability arisen before Closing Date and not expressly included in Tioga's consolidated balance sheet determined in accordance to US GAAP, such liabilities shall also be deducted in their aggregate amount from the US\$ 12,000,000 for the purpose of determining the Option Consideration. "Assumed Liabilities" shall include all of Tioga's liabilities, excluding consolidated financial indebtedness (including overdrafts, actually drawn amounts with respect to revolving credit facilities, long term and short term debt, capital leases and any other outstanding amount requiring either payment of interest thereon or repayment of a principal amount). Acquired assets shall include all of Tioga assets excluding cash and cash equivalent as defined in the Whereas preamble. For purposes of this Article, the term "Unfunded employee-related liabilities" shall include, but not be limited to, all amounts, if any, that have not been deposited with the employees' respective pension plans or managers' insurance policies in the manner required pursuant to such plans or policies and applicable law, and shall exclude employee-related liabilities for which accrual was properly made according to the applicable law and US GAAP and shall also exclude amounts due with respect to employee severance and other employee-related rights for which accrual was duly made according to the applicable law and US GAAP.
- 1.2 Put Option. ST hereby grants Tioga, subject to all requirements and consents required under Israeli law (including shareholder approval) and under SEC regulations and the provisions of Section 5 herein, the right, exercisable in whole but not in part, at any time during the Put Option Exercise Period (as defined below), to cause ST to effect the Assets Deal or the Merger, according to ST exclusive choice, in return for the Option Consideration.
- (a) The period in which the Put Option may be exercised by Tioga, shall commence on January 16, 2003 and shall continue for a period of fifteen days thereafter, i.e. until January 31, 2003, (the "Put Option Exercise Period") (each of the Put Option Exercise Period or the Call Option Exercise Period, as the case may be, is referred to herein as the "Option Exercise Period").
- (b) The Put Option shall be exercisable by the delivery by Tioga of a written notice of exercise to ST substantially in the form attached hereto as Exhibit 1.2(c) (the "Notice of Exercise of Put Option"), such Notice of Exercise of Put Option to be delivered to ST by no later than 8:00 p.m. (Israel time) on the last day of the Put Option Exercise Period.
- 1.3 Mechanism of Transaction. Subject to ST having reasonable financial and/or corporate preferences to effect an Assets Deal rather than a Merger, ST shall be exclusively entitled to select the Assets Deal or the Merger either when exercising its Call Option or upon exercise by Tioga of its Put Option. In particular, in case the Merger is initially selected by ST and cannot be finalized for any reason, ST will still be entitled to select the Assets Deal as long as such selection takes place prior to the last day of the Call Option Exercise Period or, if not decided yet at that time, within five days of Tioga notifying in writing to ST the impossibility to execute the Merger or the Assets Deal (the "Notice of No Closing"), as applicable.

Upon delivery of the Notice of Exercise, Tioga shall take all necessary legal and corporate actions required under applicable law in order to obtain the necessary approvals required for purposes of effecting the Merger or the Assets Deal. On the date hereof, Messrs. Izhak Tamir and Eric Paneth shall deliver to ST their respective undertakings not to sell their current shares and to vote all their shares in Tioga in favor of the transaction selected by ST, if so required, and, in any case, against any other acquisition or merger proposal that may be brought to a shareholders meeting until Apr. 15, 2003 or any other date as agreed between the Parties, in the form set forth in *Exhibit 1.3*.

- 1.4 Impossibility to close after Option Exercise. Upon ST exercise of its Call Option, in the event that any Option Closing cannot be consummated for any reason not attributable to ST nor to Force Majeure (i.e. act of God, earthquake, fire, flood, requirements or acts of any government or agency thereof) (as resulting from the Notice of No Closing):
 - (i) Tioga shall immediately pay ST an amount of US\$1,800,000, in cash, as a break-up fee, upon release of the Notice of No Closing.
 - (ii) In the event that within one year following the Notice of No Closing, there is a Change of Control over Tioga (as defined under Art. 3.3 of the Services Agreement), then Tioga shall immediately pay to ST an additional break-up fee that shall be the greater of (a) US\$ 4,000,000, and (b) 20% of the consideration paid in such Change of Control transaction to Tioga or Tioga's shareholders, to be paid in cash or in shares according to what Tioga or Tioga shareholders will receive, reduced by the \$1,800,000 paid to ST as the break up fee described in the previous Art. 1.4 (i). For the purpose of this Article 1.4, (i) the sale, of all of Tioga's Intellectual Property and substantially all of its R&D personnel, collectively, whether as a single sale or a series of related sales to one or more parties under direct or indirect common control, and (ii) any license granted by Tioga or its successors to any third party, directly or indirectly put under the same control or directly or indirectly controlling Tioga or its successors shall be deemed to be a Change of Control.
 - (iii) Upon receipt of Tioga Notice of No Closing, ST shall be immediately released from any obligations pursuant to Art. 6 of the Services Agreement (No Solicitation of Tioga employees) provided that in the event of Force Majeure, the restrictions set forth in Art. 6 of the Services Agreement shall not apply to such Tioga's R&D engineers required by ST for exploitation of the Transferred Technology. (iv)The provisions of this Art. 1.4 shall replace the provisions of Art. 3.3 (a) of the Services Agreement for the first 12 months period from the Notice of No Closing. Thereafter, Art. 3.3 (a) of the Services Agreement shall apply for the remaining period defined under such article.
- 1.5 Option Closing. The Assets Deal or the Merger pursuant to the exercise of the Call Option or the Put Option, as the case may be, shall take place at a closing (the "Option Closing") on a date which is within three (3) business days following the receipt by the parties of all consents, corporate approvals, and compliance with all requirements, under any applicable law, including the receipt of the approval of the Merger by the Israeli Registrar of Companies which, in any case, shall be deemed to occur at the latest before Apr. 15, 2003 unless otherwise agreed between the Parties. At the Option Closing, ST shall transfer to Tioga's transfer agent or such other person specified by Tioga, the Option Consideration, and the Merger shall be effected or the title to the assets shall be transferred, as applicable, according to the terms of the Assets Deal agreement or Merger agreement (to the extent such documents are required) as the case will be.
- 1.6 Further Assurances. In case of Assets Deal, if, at any time after the Option Closing, ST shall consider or be advised that any deeds, bills of sale, assignments or assurances or any other acts or things are reasonably necessary, desirable or proper (a) to vest, perfect or confirm, of record or otherwise, in ST, its right to, and title or interest in, the acquired Assets or (b) otherwise to carry out the purposes of this Option Agreement, ST shall so advise Tioga in writing, and Tioga and its Affiliates shall execute and deliver all such deeds, bills of sale, assignments and assurances and do all such other acts and things reasonably necessary, desirable or proper to vest, perfect or confirm its right, title or interest in, to or under the acquired Assets, and otherwise to carry out the purposes of this Option Agreement.

- 1.7 Closing of the TTA. This Agreement shall become effective upon the Closing of the TTA.
- 1.8 Tioga Board seat. Upon ST request Tioga, subject to applicable law, will take the necessary corporate steps in order to offer to ST a non-voting seat on its Board of Directors.
- 1.9 ST Due diligence. Tioga undertakes to make available to ST, upon ST request, at any time during the Option Exercise Period, all necessary documents as reasonably requested by ST for performing appropriate due diligence for purposes of exercising the Call Option.

SECTION 2. REPRESENTATIONS OF THE COMPANY.

The Company hereby represents and warrants to ST, subject to such exceptions as are disclosed with respect to specific numbered and lettered Sections and subsections of this Section 2 in the disclosure schedule and schedule of exceptions (the "Disclosure Schedule") delivered herewith and dated as of the date hereof, and numbered with corresponding numbered and lettered Sections and subsections, as follows:

- 2.1 Authority Relative to this Agreement. Subject to the terms and conditions herein, (i) the Company has all requisite power, authority and legal capacity to enter into this Option Agreement and, subject to shareholder approval, if needed, to consummate the transactions contemplated hereby, (ii) the execution and delivery of this Option Agreement and, except for the approval of the Company's shareholders, if needed, the consummation of the transactions contemplated hereby have been duly authorized by all necessary actions on the part of the Company, as resulting from the certified copy of the resolution of Tioga's Board of Directors and Tioga shareholders' meeting authorizing the execution of this Agreement and, subject to all necessary approvals, the consummation of any transaction set forth herein, (iii) this Option Agreement has been duly executed and delivered by the Company and constitutes the legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium or other similar Laws relating to the enforcement of creditors' rights generally and by general principles of equity. The execution and delivery of this Option Agreement by the Company does not conflict with, or result in any violation of, or default under (with or without notice or lapse of time, or both), or give rise to a right of termination, cancellation or acceleration of any obligation or loss of any benefit under (i) any provision of its Articles of Association, or (ii) any material mortgage, indenture, lease, contract or other agreement or instrument, permit, concession, franchise, license, judgment, order, decree, statute, law, ordinance, rule or regulation applicable to the Company or any of its properties or assets.
- 2.2 Title; Absence of Liens and Encumbrances. Upon delivery of the instruments representing the Assets Deal, ST will acquire good and marketable title to the acquired Assets, which shall be, subject to Orckit's rights under its loan to Tioga and relevant Letter attached hereto as *Exhibit 2.2*, free and clear of any lien and with no title defects, and will be entitled to all the rights of a holder of such acquired Assets. The Merger as contemplated by this Option Agreement is not subject to any preemptive right, right of first refusal or other right or restriction other than such rights as have been waived prior to the date hereof.

2.3 Filings.

Tioga and its Affiliates have timely filed all required forms, reports and documents with the SEC and any other competent authority, including tax authorities, (the "Tioga Documents") since their formation. As of the time it was filed with the SEC or any other competent authority, including tax authorities (or, if amended or superseded by a filing prior to the Exercise of the Notice, then on the date of such filing) and until the Option Closing, none of the Tioga Documents, including any financial statements or schedules included or incorporated by reference therein contains or will contain any untrue statement of a material fact or omits or will omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made or will be made, not misleading.

2.4 Financial Accounts.

Tioga has delivered to ST accurate and complete copies of its audited consolidated balance sheets as of December 31, 2001 and 2000, and the related audited consolidated statements of operations, stockholders' equity, and cash flows for each of the years then ended, and the notes thereto, together with the report thereon of Ernst & Young, LLP independent auditors (the "Audited Financial Statements") as attached hereto under *Exhibit 2.4*. No transaction occurred since December 31, 2001 giving rise to any material special or nonrecurring income or any material write-up or revaluation.

Absence of Undisclosed Liabilities. Neither Tioga nor any of its Affiliates have any liability or obligation, except (i) liabilities reflected on the Audited Financial Statements dated as of December 31, 2001, (ii) liabilities described in the notes accompanying the Audited Financial Statements dated as of December 31, 2001, (iii) liabilities which have arisen since December 31, 2001 in the ordinary course of business.

SECTION 3. REPRESENTATIONS OF ST.

ST hereby represents and warrants to Tioga, subject to such exceptions as are specifically disclosed with respect to specific numbered and lettered Sections and subsections of this Section 3 in the disclosure schedule and schedule of exceptions delivered herewith and dated as of the date hereof, and numbered with corresponding numbered and lettered Sections and subsections, as follows:

3.1 Authority; Binding Nature of Agreement. Subject to the terms and conditions herein, ST has all requisite power, authority and legal capacity to enter into this Option Agreement; and the execution, delivery and performance by ST of this Option Agreement has been duly authorized by all necessary corporate approvals. No vote of ST's stockholders is needed to approve any of the transactions contemplated by this Option Agreement. This Option Agreement constitutes the legal, valid and binding obligation of ST, enforceable against it in accordance with its terms, subject to (i) laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (ii) rules of law governing specific performance, injunctive relief and other equitable remedies.

SECTION 4. ADDITIONAL COVENANTS OF THE PARTIES.

- 4.1 Filings and Consents. As promptly as practicable following the receipt by any of the parties of the Notice of Exercise of Option, each party to this Option Agreement (a) shall make all filings (if any) and give all notices (if any) required to be made and given by such party in connection with the transactions contemplated by this Option Agreement, and (b) shall use all commercially reasonable efforts to obtain all consents (if any) required to be obtained (pursuant to any applicable legal requirement or contract, or otherwise) by such party in connection with the transactions contemplated by this Option Agreement. Each party to this Option Agreement shall (upon request) promptly deliver to the other party a copy of each such filing made, each such notice given and each such consent obtained by such party. The parties shall also enter into a specific Assets Deal Agreement or Merger Agreement providing for customary representations and warranties, as applicable, including but not limited to those provided hereunder.
- 4.2 Conduct Prior to Option Closing. During the period from the date of this Option Agreement until the Option Closing the Company undertakes as follows:
 - (a) The Company shall carry on its business as a going concern in the ordinary course in substantially the same manner as heretofore conducted, including without limitation the payment of all wages, bonuses, employee benefits and contributions and necessary filings of Tioga Documents with the SEC or any other competent authority, including tax authorities.
 - (b) In the event of, and promptly after becoming aware of, the occurrence of or the pending or threatened occurrence of any event that would cause any of the representations and warranties set forth in Section 2 to be inaccurate in any material respect, the Company will give notice thereof to ST and will use its best efforts to prevent or remedy promptly such breach or inaccuracy.

- (c) Excluding in connection with the Orckit Loan and any amendment thereof (letter of Orckit attached under *Exhibit 2.2*), the Company shall not mortgage, charge or pledge any intellectual property asset, or create or suffer to exist any material lien thereupon;
- (d) Tioga shall not solicit, directly or indirectly, any offer to be acquired; provided, however, that in the event that an offer to acquire the Company is made by any third party and the Board of Directors of Tioga, in compliance with its fiduciary obligations, agrees to recommend to the shareholders of Tioga to accept the offer, Tioga shall notify ST in writing of such offer having been made. In the event that ST does not decide to exercise the Call Option within 7 working days from the date of such notice, and Tioga elects to accept such offer, then Tioga shall immediately pay ST a break-up fee in the amount of US\$ 2,500,000 in cash, and shall immediately release ST from any obligation in connection with Art. 6 of the Services Agreement (Non Solicitation of Tioga employees).
- 4.3 Documents Delivered by Tioga Prior to Option Closing. Tioga shall deliver to ST, within thirty (30) business days of the receipt of the Notice of Exercise of Option, the following documents and instruments:
 - (a) True and correct copies of resolutions of the Board of Directors of the Company, authorizing the transaction contemplated hereby;
 - (b) All consents and regulatory approvals required to be obtained by Tioga for the consummation of the Option Closing; provided that in the event that any such consents require the Purchaser to be an Israeli entity, ST shall assign all rights and obligations under this Option Agreement to an Israeli entity of its choice and shall remain jointly and severally liable with such entity with respect to all obligations set forth herein
- 4.4 Employees. As soon as practicable after the Option Closing, ST shall provide to all employees of the Company such employee benefit plans, programs and arrangements as ST has discussed with Tioga's VP of HR prior to the signature of this Agreement.
- 4.5 Tax Liability. Each party shall be responsible for all its respective tax obligations deriving from the transactions contemplated by this Agreement.

SECTION 5. CONDITIONS TO CLOSING.

- 5.1 Closing Conditions. The exercise by the Company of the Put Option shall be subject to the fulfillment, on the Put Option Exercise Date, of the following terms and conditions.
 - (a) ST's revenues in 2002 calendar year (the "Revenues Determination Period"), for any products incorporating any portion of Tioga's Intellectual Property (the "Tioga Associated Revenues"), is equal to or exceeds US\$10 million. ST shall, within 10 days of termination of the Revenues Determination Period, furnish to Tioga proof of the amount of Tioga Associated Revenues. For this purpose, ST shall, at Tioga's option, either grant the latter's external independent representatives the right of access to all relevant business documents, have copies prepared thereof and provide all necessary information, or submit an independent accountant certificate to that effect;
 - (b) at least 44 of Tioga's R&D engineers as defined and listed in the Services Agreement, including such number of senior employees as shall be determined by the parties, shall have been offered by ST and accepted employment with ST, provided that ST shall have offered such employees terms of employment that are not less favorable than the terms already applied by ST to ST employees having similar age, rank, seniority, experience, skills and based on the elements indicated in Art. 4.4, as agreed between the Parties.

- (c) in case ST has selected to go through a Merger, the Net Financial Indebtedness of Tioga does not exceed US\$8 million.
- (d) All of the covenants and obligations that Tioga is required to comply with or to perform at or prior to the Option Closing shall have been complied with and performed in all respects during the period until the Closing, including any shareholders' approval to effect the Merger or the Asset Deal.

SECTION 6. INDEMNIFICATION

6.1.1 Indemnification

During the Option Exercise Period, each party (the "Indemnifying Party") shall defend, indemnify, and hold the other party and its employees, directors, officers, shareholders and agents (the "Indemnitees") harmless from and against, and reimburse the Indemnitees with respect to, any and all losses, damages, liabilities, claims, judgments, settlements, fines, costs, and expenses (including reasonable attorneys' fees) finally assessed by a court of competent jurisdiction and actually paid by the Indemnitees (the "Damages"), not exceeding in the aggregate US\$1,800,000 (the "Indemnifiable Amount"), of every nature whatsoever incurred by the Indemnitees by reason of or arising out of or in connection with:

- (a) any misrepresentation or breach of warranty made by it in this Option Agreement; and
- (b) any breach by it of any covenant, agreement or undertaking made by it in this Agreement.

6.1.2 Indemnification

During the thirty days period following the Option Closing, and provided that ST has elected to effect the Assets Deal, Tioga shall defend, indemnify, and hold ST and its employees, directors, officers, shareholders and agents harmless from and against, and reimburse them with respect to, any and all Damages, not exceeding the Indemnifiable Amount, of every nature whatsoever incurred by the Indemnitees by reason of or arising out of or in connection with:

- (a) any misrepresentation or breach of warranty made by Tioga in the Asset Purchase Agreement that will be entered into by the Parties; and
- (b) any breach by Tioga of any covenant, agreement or undertaking made by it in the Asset Purchase Agreement.
- 6.2 Conditions of Indemnity. Notwithstanding any other provision in this Section 6, the Indemnitees shall be entitled to indemnification only if the aggregate Indemnifiable Amounts exceed fifty thousand dollars (US\$50,000) (the "Threshold Amount"), provided that at such time as the amount to which the Indemnitees are entitled to be indemnified exceeds the Threshold Amount, the Indemnitees shall be entitled to be indemnified up to the full Indemnifiable Amounts including the Threshold Amount. In addition, in the event of a third party claim, the above indemnification is conditioned upon the Indemnitee (i) giving the Indemnifying Party prompt notice in writing of such claim, suit, proceeding or threat thereof, (ii) permitting the Indemnifying Party sole control, through counsel of its choice to defend and/or settle such suit and (iii) giving the Indemnifying Party all the needed information, assistance and authority, at the Indemnifying Party's expense, to enable it to defend or settle such Claim.
- **6.3** In order to secure Tioga's obligations pursuant to Section 6.1.2 above, the Parties shall establish an escrow account in which US\$1,800,000 of the proceeds received by Tioga in the Assets Deal shall be deposited for the thirty (30) day period during which the indemnification obligation set forth in 6.1.2 above survives.
- **6.4** Exclusive Remedies. Each Party acknowledges and agrees that its sole and exclusive remedy (except in the case of fraud, in which case such Party reserves all rights available to it under the law with respect to the party committing such fraud) with respect to any and all claims relating to the subject matter of this Option

Agreement and the documents and certificates specifically contemplated by this Agreement shall be pursuant to the indemnification provisions set forth in this Section 6.

SECTION 7. MISCELLANEOUS PROVISIONS.

- 7.1 Governing Law. This Option Agreement shall be governed by and construed in accordance with the internal laws of the State of New York, without giving effect to its conflict of laws principles. If a dispute arises out of or related to this Agreement, the parties agree to submit the dispute to arbitration. The arbitration proceedings will be conducted by a single arbitrator selected by the parties or, if the parties can not agree on the identity of the arbitrator, by a panel of three arbitrators, one selected by each of the parties and the third mutually selected by the other two arbitrators. The decision of the arbitrators shall be final and binding upon the parties. The cost of the arbitration, including the fees and expenses of the arbitrator(s), will be shared equally by the parties unless the award otherwise provides. The arbitration shall be conducted in the English language and all hearings shall be held in New York.
- 7.2 Further Assurances. Each of the parties hereto shall perform such further acts and execute such further documents as may reasonably be necessary to carry out and give full effect to the provisions of this Option Agreement and the intentions of the parties as reflected hereby.
- 7.3 Notices. Any notice or other communication required or permitted to be delivered to any party under this Agreement shall be in writing and shall be deemed properly delivered, given and received when delivered by hand, by registered mail, by courier or express delivery service to the address set forth beneath the name of such party below (or to such other address as such party shall have specified in a written notice given to the other parties hereto), and provided that a mail or courier receipt, as applicable, is obtained:

if to ST:

Strategic Planning
STMicroelectronics
Route de Pré-Bois, 20
1215 Geneva
Switzerland
with a copy to
General Counsel
STMicroelectronics NV
Route de Pré-Bois, 20
1215 Geneva
Switzerland

If to the Company:

Tioga Technologies Ltd.
32 Nahalat Yitzhak St.
Tel Aviv, Israel
Attn: Izhak Tamir, Chairman
with a copy to:
Naschitz, Brandes & Co.
5 Tuval Street
Tel-Aviv, Israel
Fax: 972 3 623 5021
Attention: Sharon A. Amir, Adv.

- **7.4 Headings.** The boldface headings contained in this Option Agreement are for convenience of reference only, shall not be deemed to be a part of this Option Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.
- 7.5 Counterparts. This Option Agreement may be executed in several counterparts, each of which shall constitute an original and all of which, when taken together, shall constitute one agreement.

7.6 Waiver.

- (a) No failure on the part of any Person to exercise any power, right, privilege or remedy under this Option Agreement, and no delay on the part of any Person in exercising any power, right, privilege or remedy under this Option Agreement, shall operate as a waiver of such power, right, privilege or remedy within the mandatory terms as provided hereunder; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.
- (b) No Person shall be deemed to have waived any claim arising out of this Option Agreement, or any power, right, privilege or remedy under this Option Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Person; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.
- **7.7** Amendments. This Option Agreement may not be amended, modified, altered or supplemented other than by means of a written instrument duly executed and delivered on behalf of all of the parties hereto.
- **7.8** Severability. In the event that any provision of this Option Agreement, or the application of any such provision to any person or set of circumstances, shall be determined to be invalid, unlawful, void or unenforceable to any extent, the remainder of this Option Agreement, and the application of such provision to persons or circumstances other than those as to which it is determined to be invalid, unlawful, void or unenforceable, shall not be impaired or otherwise affected and shall continue to be valid and enforceable to the fullest extent permitted by law.
- **7.9 Termination.** Either party may terminate this Agreement in the event of a demonstrated material failure by the other party to comply with its contractual obligations under this Agreement, the TTA or the Services Agreement, which failure shall not have been cured within 90 days from a written notice given by the terminating party to cure such failure provided, however, that the effects of this Agreement shall remain in force in favor of the non breaching party and that the breaching party can not invoke this article to its benefit.
- **7.10** Entire Agreement. This Option Agreement and the Exhibits hereto constitute the full and entire understanding and agreement between the parties with regard to the subject matters hereof and supersede all prior agreements and understandings among or between any of the parties relating to the subject matter hereof.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

STMICROELECTRONICS NV	
By: Name: Title:	
TIOGA TECHNOLOGIES LTD.	
Ву:	
Name:	
Title:	

EXHIBIT 1.1(b) NOTICE OF EXERCISE OF CALL OPTION

To: Tioga Technologies Ltd. ("Tioga")	
Date:	
The undersigned hereby irrevocably elects to exercise Agreement by and between the undersigned and Tioga, da Subject Art. 1.3 above, the method for exercising the Call	ited as of February 14, 2002 (the "Agreement").
☐ Merger (as defined in the Agreement);	
☐ Assets Deal (as defined in the Agreement);	
in any case, subject to all terms and conditions stated in th	e Agreement.
•	STMICROELECTRONICS N.V.
	Ву:
	Name:
	Title:

EXHIBIT 1.2(c)

NOTICE OF EXERCISE OF PUT OPTION

To: STMicroelectronics N.V. ("ST")

Date:	
Agreement by and between the undersigned and cause ST to effect the Assets Deal (as defined in	to exercise the Put Option (as defined in that certain Option ST, dated as of February 14, 2002 (the "Agreement") and to the Agreement) or the Merger (as defined in the Agreement), to all terms and conditions stated in the Agreement.
	Tioga Technologies Ltd.
	Ву:
	Name:
	Title:

February 14, 2002

Tioga Technologies 38 Nahalat Yitzhak Tel Aviv, Israel

Attention: Doug Goodyear, President and CEO

Re: Tioga Technologies Ltd. ("Tioga") debt to Orckit Communications Ltd. ("Orckit").

This letter is written in connection with your intention to execute a Technology Transfer Agreement (the "TTA"), a Development Marketing and Services Agreement (the "Services Agreement") and an Option Agreement (the "Option Agreement") with a third party (the "Third Party"), in February, 2002 (the "Business Combination").

The undersigned, as a secured lender of Tioga pursuant to the Loan Agreement (the "Loan Agreement") dated as of January 1, 2000, the Debenture (the "Debenture") dated June 30, 2000, and the Intellectual Property Agreement attached as Exhibit B to the Separation Agreement (the "IP Agreement") dated June 20, 2000 entered into by and between Tioga and Orckit, hereby irrevocably, subject to the terms of this letter, agrees as follows:

1. Following the signature of the agreements pertaining to the Business Combination and prior to the earlier of (i) February 1, 2003 and (ii) the Option Closing (as defined under the Option Agreement) (the "Termination Date"), Orckit shall request from Tioga, and Tioga shall pay to Orckit, as part of the repayment of the loan pursuant to the Loan Agreement, the payments set forth below, on account of the principal of the Loan, which payments shall not exceed an aggregate amount of US\$16 million, according to the following schedule:

upon Closing of the TTA (as defined therein): US Dollars 13,000,000; thereafter, until the Option Closing, Tioga will make additional payments as per Orckit request herein, in an amount equal to (i) the cash actually received by Tioga from OCS grants covering activities for 2002 plus (ii) the cash actually released to Tioga in connection with the escrow under the Silicon Value Asset Purchase Agreement dated April 23, 2001.

Nothing contained herein is intended, nor shall it be interpreted, to be a waiver by Orckit of its right to receive from Tioga the full amount of the Loan and interest due thereon under the Loan Agreement.

2. Orckit shall not demand any amount in excess of the amount set forth in Section 1 above or trigger an acceleration of the payment due pursuant to the Loan Agreement until the Termination Date; provided, that (i) the Charge, as defined in the Debenture, securing the unpaid balance loan to Orckit, shall remain in full force and effect, and (ii) the Services Agreement remains in full force and effect with the payments due thereunder to Tioga being made in accordance with the terms thereof, whether or not Tioga is in receivership or liquidation or is insolvent, or the like.

In case of Merger of Tioga with the Third Party, Orckit shall assume all obligations connected to the Tioga/Orckit convertible debt provided that the Third Party shall pay the corresponding amount required to Orckit, as deducted from the Option Consideration.

- 3. Upon the Closing of all of the agreements in respect of the Business Combination, sections 2.2 (b) and 3.1 (b) of the IP Agreement shall be amended so that the date "January 15, 2004" shall be inserted instead of the date "May 1, 2002".
- 4. Orckit hereby acknowledges that the rights defined under sections 2.2 (c) and 3.1. (c) of the IP Agreement were valid only until January 2002.

- 5. Upon and concurrently with the Option Closing, the entire balance of the Loan, together with all accrued and unpaid interest thereon, shall be paid by Tioga to Orckit.
- 6. Except as amended hereby, the Loan Agreement and the Debenture remain in full force and effect.

Orckit Communications Ltd.
By:
Name:
Title:
Acknowledged and accepted
Tioga Technologies Ltd.
By:
Name:
Tr'al

[This page intentionally left blank]

CONSOLIDATED FINANCIAL STATEMENTS As of December 31, 2001 in U.S. dollars

INDEX

	Page
Report of Independent Auditors	
Consolidated Balance Sheets	B-3 - B-4
Consolidated Statements of Operations	B-5
Statements of Changes in Shareholders' Equity (Deficiency)	B-6
Consolidated Statements of Cash Flows	B-7 - B-8
Notes to Consolidated Financial Statements	B-9 - B-28



Kost Forer & Gabbay 3 Aminadav St. Tel-Aviv 67067, Israel Phone: 972-3-6232525 Fax: 972-3-5622555

REPORT OF INDEPENDENT AUDITORS

To the Shareholders of TIOGA TECHNOLOGIES LTD.

We have audited the accompanying consolidated balance sheets of Tioga Technologies Ltd. ("the Company") and its subsidiaries as of December 31, 2000 and 2001, and the related consolidated statements of operations, changes in shareholders' equity (deficiency) and cash flows for each of the three years in the period ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of December 31, 2000 and 2001, and the consolidated results of their operations and cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

Tel-Aviv, Israel February 14, 2002

KOST FORER & GABBAY
A Member of Ernst & Young International

CONSOLIDATED BALANCE SHEETS U.S. dollars in thousands

	Decem	ber 31,
	2000	2001
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$18,793	\$ 7,712
Marketable securities	28	
Related party—trade receivables	8,398	· 21
Trade receivables	2,470	22
Deposit in escrow (Note 13)		1,800
Other current assets (Note 3)	1,088	1,939
Inventories	493	59
Total current assets	31,270	11,553
LONG-TERM INVESTMENTS		
Long-term prepaid expenses (Note 13)		219
Long-term lease deposits	175	27
Total long-term investments	175	246
SEVERANCE PAY FUND	1,190	791
PROPERTY AND EQUIPMENT, NET (Note 4)	7,062	860
OTHER ASSETS, NET (Note 5)	20,000	. —
	\$59,697	<u>\$13,450</u>

CONSOLIDATED BALANCE SHEETS—(Continued) U.S. dollars in thousands, (except share data)

			Decem	ber 31,
			2000	2001
LIABILITIES AND SHAREHOLD	DERS' EQUITY (DEFICIENCY)			
CURRENT LIABILITIES:				
			\$ 10,000	\$ —
_	from a related party (Notes 8 and 16b)			13,000
			3,976	882
	tracts and billing in excess of costs (Note 13)		894	
	: 12)		11,618	214
- · · · · · · · · · · · · · · · · · · ·			1,967	733
			5,468	1,092
Total current liabilities			33,923	15,921
LONG-TERM LIABILITIES:				
Long-term loan from a related party (Notes 8 and 16b)		20,000	7,000
Accrued severance pay			2,145	1,523
Total long-term liabilities.			22,145	8,523
COMMITMENTS AND CONTINGE	ENT LIABILITIES (Note 9)	•		
SHAREHOLDERS' EQUITY (DEFI	· · · ·			
Share capital:	, ,			
Ordinary shares of NIS 0.1 par v	alue: Authorized: 45,000,000 and 50,000,000)		
shares as of December 31, 200	00 and 2001, respectively; Issued and			
outstanding: 22,466,930 and 2	4,555,779 shares as of December 31, 2000			
			540	590
	Ordinary shares of NIS 0.1 par value:			
	hares as of December 31, 2000 and 2001,			
	anding: 1,510,000 and 0 shares as of			
	respectively		38	146 020
			146,532	146,029
			(5,075)	(1.920)
-	ss		(658)	(1,830)
-			(115) (137,633)	(155,783)
	deficiency)	-	3,629	(10,994)
		-	\$ 59,697	\$ 13,450
		:	- 57,077	Ψ 15,450
The accompanying n	otes are an integral part of the consolidated f	inancial s	statements.	
February 14, 2002				
Date of approval of the	Douglas Goodyear	Izh	nak Tamir	
financial statements	- · · · · · · · · · · · · · · · · · · ·	Chairmar	of the Boa	rd of
	Executive Officer	I	Directors	

CONSOLIDATED STATEMENTS OF OPERATIONS

U.S. dollars in thousands (except per share data)

	Year ended December 31,					
		1999		2000		2001
Revenues (Notes 12 and 14):				•		
Royalties	\$	- .	\$		\$	1,418
Product		4,410		14,517		22
Engineering contracts		851	_			
		5,261	_	14,517		1,440
Cost of revenues (Note 12):						
Product		3,969		13,107		8
Engineering contracts		592	_			
		4,561	_	13,107		8
Gross profit		700	_	1,410		1,432
Research and development expenses		3,606		8,974		9,537
Less—royalty-bearing grants					_	1,571
Research and development expenses, net		3,606		8,974		7,966
Selling, marketing, general and administrative expenses		588		3,470		4,067
Spin-off expenses				1,199		· —
Amortization of deferred stock compensation *)		50		92	_	2,252
Total operating expenses	_	4,244		13,735		14,285
Operating loss		(3,544)		(12,325)		(12,853)
Other expenses				_		(16)
Financial income (expenses), net (Note 15)		80		969		(1,238)
Net loss from continuing operations		(3,464)		(11,356)		(14,107)
Loss from discontinued operations net of income tax provision						
\$170 and \$13 for the year ended December 31, 2000 and 2001,				•		
respectively (Note 13)			_	(120,839)		(4,043)
Net loss	\$	(3,464)	\$	(132,195)	\$	(18,150)
Basic and diluted net loss per share:						
Net loss per share from continuing operations	\$	(0.16)	\$	(0.51)	\$	(0.60)
Net loss per share from discontinued operations	_			(5.38)	_	(0.17)
Net loss per share	\$	(0.16)	\$	(5.89)	\$	(0.77)
Number of shares used in computing basic and diluted net loss						
per share	22	2,007,000	2	2,455,860	23	3,604,309

^{*)} Amortization of deferred stock compensation related to the following operating expenses: Research and development expenses \$50, \$92 and \$1,338 for the years ended December 31, 1999, 2000 and 2001, respectively; Selling, marketing, general and administrative expenses \$0, \$0 and \$914 for the years ended December 31, 1999, 2000 and 2001, respectively.

The accompanying notes are an integral part of the consolidated financial statements.

STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (DEFICIENCY)

U.S. dollars in thousands, except share data series A

				Series A								
	Parent	Ordinary shares	hares	redeemable Ordinary shares		Notes Additional receivable	Notes receivable	Deferred	Accumulated other		Total .	Total shareholders'
	company a	Shares	Amount	Shares	Amount	pand-ın capital	officers	stock compensation	comprehensive Accumulated comprehensive loss	Accumulated deficit	comprenensive loss	equary (deficiency)
Balance at January 1, 1999	\$ 3,224 3,794		.		الم	\$ 200	J.	 	<u></u>	\$ (1,974)		\$ 1,450 3,794
Compensation component of options granted to employees	1	I	1	I	1	99	I	1	1	1		09
Comprehensive loss: Net loss	H	1	+	-			1	1	1	(3,464)	\$ (3,464)	(3,464)
Total comprehensive loss	7.018	İ	İ	1	ļ	260	1	1	I	(5.438)	(3,404)	1.840
Exercise of stock options. Acoustion of Silicon Value (S.V.) Ltd.	132.713	14,186	*		1	24		1 1	1 1			24 132,713
ble C	(139,731)	31) 22,452,744	540	1,510,000	38	5,247 139,060	(5,075)	11	11			210 (131)
Deferred compensation related to issuance of series A convertible redeemable Ordinary shares to officers	I	1	1	ı	1	750	I	(750)	l	I		l s
Amortization of deferred stock compensation Amortization of compensation related to warrants erranted to service moviders			1 1	1 1	1 1	- 1.191	1	76	I I			1,191
Comprehensive loss: Unrealized losses from available for sale marketable securities Net loss		11	11		1.1	11	11	11	(115)	(132,195)	\$ (115) (132,195)	(115)
Total comprehensive loss											\$(132,310)	
Balance at December 31, 2000 Exercise of stock options	11	22,466,930 1,615,241	540 38	1,510,000	38	146,532 984	(5,075)	(658)	(115)	(137,633)		3,629 1,022
Conversions of Series A convertible redeemable Ordinary shares into Ordinary shares	ı	60,000	2	(60,000)	(2)	1	1	I	I	1		İ
Nederington of Series A Convertitor redectinate Ordinary shares Issuance of shares upon exercise of ESPP Deferred stock compensation		49,417	-	(1,450,000)	(36)	(5,039) 47 3,374	5,075		111	111		48
Amortization of deferred compensation related to repricing Amortization of deferred stock compensation		11	11	11				1,544	11	11		1,544 658
Amortization of compensation related to options granted to service providers to service providers Conversion of Orckit's subordinate notes		364,191	6		11	140	1 1			1		140
Comprehensive ross. Realized losses from available for sale marketable securities Net loss			11	1		11		11	115	(18,150)	\$ 115 (18,150)	(18,150)
Total comprehensive loss	 	24,555,779	\$590	1	,	\$146,029	*	\$(1,830)	<u>, </u>	\$(155,783)	(18,032)	\$(10,994)

^{*)} Represents an amount lower than \$1.

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS U.S. dollars in thousands

	Year	ended Decemi	ber 31,
	1999	2000	2001
Cash flows from operating activities:			
Net loss	\$(3,464)	\$(132,195)	\$(18,150)
Adjustments to reconcile net loss to net cash used in operating activities:		,	, , , ,
Depreciation	84	2,010	1,443
Amortization of goodwill and other intangibles assets		25,666	2,759
Losses from selling property and equipment			44
Realized losses (gains) on available for sale marketable securities	_	(1,510)	99
Decrease (increase) in related party—trade receivables	(148)	(8,073)	8,377
Decrease (increase) in trade receivables	(133)	(470)	1,761
Decrease (increase) in other current assets	(86)	(183)	618
Increase in inventories	_	(183)	(321)
Impairment of goodwill and other intangible assets	_	58,068	
In process research and development write off	_	24,695	
Write off of property and equipment	_ .		823
Accrued severance pay, net	64	355	32
Amortization of deferred stock compensation	60	92	2,202
Amortization of compensation related to warrants granted to service providers		1,191	140
Increase (decrease) in trade payables	128	(276)	(93)
Increase (decrease) in related party—current account	<u> </u>	11,561	(11,404)
Decrease (increase) in other current liabilities	156	3,274	(5,471)
Gain from disposition of SVL business	(47)	_	(45)
Other	(47)		
Net cash used in operating activities	(3,386)	(15,978)	(17,186)
Cash flows from investing activities:			
Payment for the acquisition of Silicon Value (S.V) Ltd., (a)	_	5,036	
Investment in short-term bank deposits	(1,660)		
Proceeds from short-term bank deposits	_	1,707	
Proceeds from realization of available for sale marketable securities	_	1,382	44
Purchase of property and equipment	(153)	(3,275)	(932)
Proceeds from selling property and equipment		_	39
Decrease (increase) in long-term lease deposits	_	(175)	63
Proceeds from disposition of SVL business	_		15,821
Net cash provided by (used in) investing activities	(1,813)	4,675	15,035
Cash flows from financing activities:	2 704		
Contribution of capital from parent company	3,794	102	1.070
Proceeds from issuance of shares, net		103 9,938	1,070
		9,936	(10,000)
Payment of short-term bank credit		20,000	(10,000)
Proceeds from long-term loan from a related party	2.704		(0.020)
Net cash provided by (used in) financing activities	3,794	30,041	(8,930)
Increase (decrease) in cash and cash equivalents Cash and cash equivalents at the beginning of the year	(1,405) 1,460	18,738	(11,081) 18,793
Cash and cash equivalents at the end of the year	\$ 55	\$ 18,793	\$ 7,712
Supplemental disclosure of cash flows activities:			
Cash paid (received) during the period for interest	\$ —	\$ 251	\$ (95)
			====
Non-cash investing activities:	•		•
Purchase of property and equipment	<u> </u>	\$ 2,032	>

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS U.S. dollars in thousands

(a) Payment for acquisition of Silicon Value (S.V) Ltd., net of cash acquired:

In April 2000, Orckit (see Note 1a) acquired all of the outstanding shares of Silicon Value (S.V) Ltd. (see Note 1b). The fair value of the assets acquired and liabilities assumed as of the date of acquisition was as follows:

		ar ended ember 31, 2000
Working capital deficiency, net (excluding cash and cash equivalents) Severance pay	\$	3,841 310
Property and equipment	,	(3,399) 103,734) (24,695)
Parent company account	,	127,677) 132,713 5,036

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS U.S. dollars in thousands (except share data)

NOTE 1:- GENERAL

a. Tioga Technologies Ltd. ("the Company", "Tioga") (the Company changed the name to Tioga Technologies Ltd. from Tikcro Ltd. in May 2000) is a provider of digital subscriber line(DSL) applications, supplying integrated circuits, software and system-level solutions to enable ultra high speed communications over existing telephone wires. The Company empowers public telephone operators with the ability to offer new services, such as: Internet access, video on demand, interactive multimedia and ATM. Tioga has a wholly owned subsidiary, Silicon Value (S.V) Ltd. ("SVL"). SVL has a wholly-owned U.S. subsidiary, Tioga Technologies Inc.

On January 30, 2000, the Board of Directors of Orckit Communications Ltd. ("Orckit") decided to explore a Plan of Separation (the "Plan") under Section 350 of the Israeli Companies Law, pursuant to which, Orckit will be formally divided into two separate companies: (i) Tioga which would own substantially all of Orckit's Semiconductor chip business, and (ii) Orckit itself, which would continue to own and operate its telecom equipment and other businesses.

b. Acquisition of SVL:

In April 2000, Orckit acquired all of the outstanding shares of SVL, an Israeli based company, at an aggregate purchase price of approximately \$135 million which was paid in Orckit's stock (approximately 1.6 million Ordinary shares) and options to purchase Orckit shares granted to employees and consultants of SVL (approximately 0.4 million options). SVL has a wholly owned subsidiary incorporated in the United States. SVL and its subsidiary were engaged in the development, production and sale of ASIC chips.

SVL was transferred to Tioga as part of the spin-off plan.

The acquisition was accounted for by the purchase method of accounting. The excess cost over the fair value of net assets acquired was \$128,429, out of which \$24,695 was charged to expense and represents the estimated value of the Technology acquired form SVL for which technological feasibility has not yet been established and for which no alternative future use exists ("in process research and development write-off"), and the remaining amount is being amortized on a straight-line basis over a three-year period.

- c. In April 2001, the Company sold its ASIC division of its wholly owned subsidiary SVL. The results of operations for the year ended December 31, 2000 and 2001, reflect the ASIC division as discontinued operations (See Note 13).
 - d. In September 2001, the Board of Directors of the Company decided to liquidate SVL.
- e. The majority of the Company's revenues is derived from royalties paid by Orckit pursuant to an agreement between the parties. The agreement will expire on May 1, 2002 (see also Notes 9c3 12 and 14).

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("US GAAP").

a. Basis of presentation:

The statements of operations for the year ended December 31, 1999 included the revenues from product sales to Orckit, based on the Supply Agreement—see Note 9c(3) and costs directly attributable to the Tioga

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

Business including charges for shared facilities, functions and services used by the Tioga business. Certain costs and expenses were allocated based on management's estimates of the cost of services provided to the Tioga business. Such costs included research and development costs and selling, marketing, general and administrative expenses. Such allocations and charges were based on either a direct cost pass-through or a percentage of total costs for the services provided based on factors such as headcount or the specific level of activity directly related to such costs.

Management believed that the foregoing allocations were made on a reasonable basis; however, the allocations of costs and expenses do not necessarily indicate the costs incurred by the Company on a stand-alone basis. Also, the financial information for the periods prior to the consummation of the plan included in the financial statements may not necessarily reflect the financial position, results of operations and cash flows of the Company if it had been a separate, stand-alone company.

b. Use of estimates:

The preparation of the financial statements in conformity with generally accepted accounting principles, requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

c. Financial statements in U.S. dollars:

Most of the Company's transactions are recorded in New Israeli Shekel; however, a majority of the revenues of the Company and its subsidiary is generated in U.S. dollars ("dollar"). In addition, a substantial portion of the Company's cash flow transactions is incurred in dollars. Company's management believes that the dollar is the primary currency of the economic environment in which the Company and its subsidiary operate. Thus, the functional and reporting currency of the Company and its subsidiary is the dollar.

Accordingly, monetary accounts maintained in currencies other than the dollar are remeasured into U.S. dollars in accordance with Statement No. 52 of the Financial Accounting Standard Board ("FASB") "Foreign Currency Translation". All transactions gains and losses of the remeasurement of monetary balance sheet items are reflected in the statements of operations as financial income or expenses, as appropriate.

d. Principles of consolidation:

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary. Intercompany transactions have been eliminated upon consolidation.

e. Cash equivalents:

Cash equivalents are short-term highly liquid investments that are readily convertible to cash with original maturities of three months or less.

f. Marketable securities:

The Company accounts for its investments in equity securities in accordance with FASB Statement No. 115, "Accounting for Certain Investments in Debt and Equity Securities".

Management determines the appropriate classification of investments in marketable equity securities at the time of purchase and reevaluates such determination at each balance sheet date. In the years ended December 31, 2000 and 2001 all securities covered by SFAS No. 115 were designated as available-for-sale. Accordingly, these

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

securities were stated at fair value, with unrealized gains and losses reported in a separate component of shareholders' equity accumulated other comprehensive income or loss. Realized gains and losses on sales of investments, as determined on a specific identification basis, are included in the consolidated statement of operations.

g. Inventories:

Inventories consisted only of finished products are stated at the lower of cost or market value. Inventory write-offs are provided to cover risks arising from slow-moving items or technological obsolescence. Cost is determined on the basis of direct manufacturing costs.

As of December 31, 2000 and 2001, the subsidiary, SVL, had slow-moving inventory write-offs amounting to approximately \$650 and \$0, respectively.

h. Property and equipment:

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is calculated by the straight-line method over the estimated useful lives, at the following annual rates:

	%
Leasehold improvements	10
Computers, software and related equipment	20 - 33
Office furniture and equipment	7 - 15
Vehicles	15

The Company and its subsidiary periodically assess the recoverability of the carrying amount of property and equipment and provide for any possible impairment loss based upon the difference between the carrying amount and fair value of such assets in accordance with SFAS No. 121 "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of ". As of December 31, 2000 and 2001 impairment losses have been identified in the amount of \$0 and \$823, respectively (see Note 13).

i. Other assets:

Goodwill and other intangible assets were amortized using the straight-line method over the estimated useful life, which is three years.

The carrying value of goodwill and other intangible assets was reviewed by management, based on the expected future undiscounted operating cash flows over the remaining amortization period. If this review indicated that goodwill and other intangible assets would not be recoverable, the carrying value of the goodwill or the other intangible assets was reduced to estimated fair value. As of December 31, 2000 and 2001 impairment losses have been identified to be in the amount of \$55,068 and \$0, respectively (see Note 5).

i. Income taxes:

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standard ("SFASC) 109, "Accounting for Income Taxes". This Statement prescribes the use of the liability method whereby deferred tax assets and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

k. Revenue recognition:

The Company has derived its revenues mostly from royalties and sales of products.

- 1. Revenues related to royalties received from Orckit are accounted for in accordance with EITF 99-19 "Reporting Revenue Gross as a Principal Versus Net as an Agent" and, recognized according to the net as an Agent Method. Revenues under such agreement with Orckit (see Note 9c3), are recognized at the time of shipment as reported to the Company by Orckit.
- 2. Revenues from sales of products are recognized when persuasive evidence of an agreement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable in accordance with SAB 101 "Revenue Recognition in Financial Statements".
- 3. Revenues and costs related to work-in-progress under long-term unit price contracts were accounted for in accordance with Standard Of Position ("SOP") 81-1, "Accounting for Performance of Construction—Type and Certain Production—Type Contracts" and recognized according to the percentage-of-completion method, using the input method.

As to contracts involving technological uncertainties and for which reasonably dependable cost estimates cannot be made, revenue was recognized under the completed-contract method. Anticipated losses on contracts were provided for in full when they were identified by management. Generally, a contract might be regarded as substantially completed if remaining cost and potential risk were insignificant.

Estimated gross profit or loss from long-term contracts might change due to changes in estimates resulting from differences between actual performance and original forecasts. Such changes in estimated gross profit were recorded in results of operations when they were reasonably determinable by management, on a cumulative catch-up basis.

4. Net effect of cancellation of SVL's ASIC NRE projects:

In the fourth quarter of 2000, the Company decided to focus exclusively on its DSL business, and consequently it canceled some of its operating ASIC NRE projects and decided not to take on any new projects.

Income (losses) resulting from canceled projects, were excluded from revenues and presented as part of the discontinued operations (see Note 13).

l. Warranty accrual:

Warranty accrual was determined according to management's estimation. The warranty accrual was recognized at time of recognition of the related revenues, and is included as part of selling and marketing expenses.

The warranty accrual was computed as a percentage of the revenues from sales of products.

As of December 31, 2001 the Company has no warranty accrual.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

m. Royalty-bearing grants:

Royalty-bearing grants from the Government of Israel for funding approved research and development projects are recognized at the time the Company and its subsidiaries are entitled to such grants, on the basis of the costs incurred and included as a deduction of research and development costs (see Note 9d).

n. Concentrations of credit risks:

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, trade receivables and related party trade receivables.

Cash and cash equivalents are invested in major banks in Israel and the United States mainly in U.S. Dollars. Such deposits in the United States may be in excess of insured limits and are not insured in other jurisdictions. Management believes that the financial institutions that hold the Company's investments are financially sound and, accordingly, minimal credit risk exists with respect to these investments.

Trade receivables are mainly derived from sales to related party located in Israel. The Company performs ongoing credit evaluations of its customers and to date has not experienced any material losses. An allowance for doubtful accounts is determined with respect to those amounts that the Company has determined to be doubtful of collection. As of December 31, 2000 and as of December 31, 2001 no allowance has been made by the Company.

The Company has no off-balance-sheet concentration of credit risk such as foreign exchange contracts, option contracts or other foreign hedging arrangements.

o. Accounting for stock-based compensation:

The Company has elected to follow Accounting Principles Board Opinion No. 25 "Accounting for Stock Issued to Employees" ("APB 25") in accounting for its employee stock option plans. Under APB 25, when the exercise price of the Company's share options is less than the market price of the underlying shares on the date of grant, compensation expense is recognized. The pro forma disclosures required by SFAS No. 123 "Accounting for Stock-Based Compensation" ("SFAS 123"), are provided in Note 10.

The Company applies SFAS No. 123 and EITF 96-18 "Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services" with respect to options issued to non-employees. SFAS No. 123 requires use of an option valuation model to measure the fair value of the options at the grant date.

p. Severance pay:

The Company's liability for severance pay is calculated pursuant to Israeli Severance Pay Law based on the most recent salary of the employees multiplied by the number of years of employment as of balance sheet date. Employees are entitled to one month's salary per each year of employment, or a portion thereof. The Company's liability is fully provided by monthly deposits with insurance policies and an accrual. The value of these policies is recorded as an asset in the Company's balance sheet.

The deposited funds include profits accumulated up to the balance sheet date. The deposited funds may be withdrawn only upon the fulfillment of the obligation pursuant to Israeli Severance Pay Law or labor agreements. The value of the deposited funds is based on the cash surrendered value of these policies, and includes immaterial profits.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

Severance expenses for the years ended December 31, 1999, 2000 and 2001 amounted to approximately \$222, \$598 and \$757, respectively.

q. Fair value of financial instruments:

The following methods and assumptions were used by the Company in estimating their fair value disclosures for financial instruments:

The carrying amounts of cash and cash equivalents, trade receivables, related parties, short term bank credit and trade payable approximate their fair value due to the short-term maturity of such instruments.

The carrying value and fair value for marketable securities was based on quoted market prices.

The carrying amount of the Company's long-term loan from a related party approximates its fair value. The fair value was estimated using discounted cash flow analyses, based on the Company's incremental borrowing rates for similar type of borrowing arrangements.

r. Basic and diluted net loss per share:

Basic net loss per share is computed based on the weighted average number of Ordinary shares outstanding during each year. Diluted net loss per share is computed based on the weighted average number of Ordinary shares outstanding during each year, plus dilutive potential Ordinary shares considered outstanding during the year, in accordance with FASB Statement No. 128, "Earnings per Share".

All Series A convertible redeemable Ordinary shares, outstanding stock options, warrants and subordinated convertible notes have been excluded from the calculation of the diluted net loss per Ordinary share because all such securities are anti-dilutive for all periods presented. The total numbers of shares related to the Series A convertible redeemable Ordinary shares, outstanding options, warrants and subordinated convertible notes excluded from the calculations of diluted net loss per share were 10,744,107 and 9,732,168 for the years ended December 31, 2000 and 2001, respectively.

s. Impact of recently issued accounting standards:

In June 2001, the Financial Accounting Standards Board issued SFAS No. 141, "Business Combinations" and No. 142, "Goodwill and other Intangible Assets", effective for fiscal years beginning after December 15, 2001. Under the new rules, goodwill and intangible assets deemed to have indefinite lives will no longer be amortized but will be subject to annual impairment tests in accordance with the Statements. Other intangible assets will continue to be amortized over their useful lives. Because the Company has no goodwill and other intangible assets, management believes that the adoption of the new statement will have no effect on result of operations or the financial position of the Company.

In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (FAS144), which addresses financial accounting and reporting for the impairment or disposal of long-lived assets and superseded SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Dispensed Of", and the accounting and reporting provisions of APB Opinion No. 30, "Reporting the Results of Operations for a disposal of a segment of a business". SFAS No. 144 is effective for fiscal years beginning after December 15, 2001, with earlier application encouraged. The Company expects to adopt SFAS No. 144 as of January 1, 2002 and it does not expect that the adoption of the Statement will have a significant impact on the Company's financial position or results of operations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

NOTE 3:- OTHER CURRENT ASSETS

	December 31,	
	2000	2001
Services to be rendered by the purchaser of SVL Business (see Note 13)	_	874
(see Note 13)	_	300
Unbilled receivable (insurance company)	520	
Grant from the Office of the Chief Scientist	_	460
Prepaid expenses	277	167
Government authorities	78	70
Short-term lease deposits	116	30
Loan to employees	70	38
Other	27	
	\$1,088	\$1,939

NOTE 4:- PROPERTY AND EQUIPMENT, NET

	December 31,		
		2000	2001
Cost:			
Computers, software and related equipment	\$	9,490	\$ 1,802
Office furniture and equipment		465	194
Vehicles		111	_
Leasehold improvements	_	800	155
		10,866	2,151
Accumulated depreciation		3,804	1,291
Depreciated cost	\$	7,062	\$ 860

As for charges, see Note 9b.

As for impairment, see Note 2h.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

NOTE 5:- OTHER ASSETS, NET

a. Intangible assets:

Original amounts:			
Goodwill	\$ 87,461	\$	_
Workforce	1,456		_
Core technology	10,157		_
Current technology	4,660		
	103,734	_	
Accumulated amortization:			
Goodwill	21,598		
Workforce	364		
Core technology	2,539		
Current technology	1,165		
	25,666		
Amortized cost	\$ 78,068	\$	
Impairment of other assets (see Note 5b):			
Goodwill	\$ 50,450	\$	
Core technology	7,618	·	
	58,068		
Other assets, net	\$ 20,000	\$	

b. Impairment of goodwill and other intangible assets:

Certain conditions were identified by Management, including recurring operating losses and downward adjustment to the Company's projections for 2001, as potential indicators of intangible asset impairment. In the fourth quarter of 2000, the Company decided to focus exclusively on its DSL business, and consequently it canceled some of its operating ASIC projects and decided not to take on any new projects. As a result of the above conditions, management conducted an evaluation of the carrying value and amortization periods of the Company's recorded goodwill on the acquisition of the subsidiary, SVL. Management considered current and anticipated industry conditions, recent changes in its business strategies, and current and anticipated operating results. The evaluation resulted in an impairment charge of \$58,068. The impairment was based on estimated future cash flows to be generated by the remaining ASIC business, discounted at a market interest rate, and is presented as part of the discontinued operations—see Note 13.

NOTE 6:- SHORT-TERM BANK CREDIT

As of December 31, 2000, the Company had an authorized and used bank line of credit in the amount of \$10,000 which is denominated in dollars and bears interest of LIBOR + 1% per annum.

During the forth quarter of 2001, the Company fully repaid the short-term credit.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

NOTE 7:- OTHER CURRENT LIABILITIES

	December 31,	
	2000	2001
Provision for vacation and recreation	\$ 727	\$ 372
Government authorities	103	129
Advances from customer	583	_
Accrued expenses	3,591	591
Provision for warranty to customers	464	
	\$5,468	\$1,092

NOTE 8:- LONG-TERM LOAN FROM A RELATED PARTY

As of December 31, 2000, the Company received a long term loan from a related party (Orckit) in the amount of \$20,000. The loan is denominated in U.S. dollar and payable by March 1, 2005. As of December 31, 2000, the loan bears interest of LIBOR + 2% per annum. Commencing January 1, 2001, the interest was changed to 6% per annum.

As for charges, see Note 9b.

As for subsequent event, see Note 16b.

NOTE 9:- COMMITMENTS AND CONTINGENT LIABILITIES

a. Lease commitments:

The Company rents its facilities and vehicles under various operating lease agreements, which expire on various dates, the latest of which is in 2004. Future rental commitments are as follows:

	Year ended December 31,
2002	\$243
2003	\$140
2004	\$ 55
	\$438

Total rent expenses for the years ended December 31, 1999, 2000 and 2001, were approximately \$190, \$828 and \$1,047, respectively

b. Charges:

A floating charge on all assets in unlimited amount has been registered as security for long-term loans from a related party.

c. Spin-off:

In connection with the spin-off plan, Tioga and Orckit, except as otherwise contemplated in the agreements referred to below, operate independently of one another as separate public companies.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

The following is a summary of the material terms of the Intercompany Agreements and other arrangements and transactions between Tioga and Orckit.

1. Separation agreement:

In connection with the plan, Tioga entered into a separation agreement with Orckit pursuant to which Orckit contributed substantially all of the assets and liabilities of its semiconductor business to Tioga in exchange for that number of Tioga's Ordinary shares, which equals the number of Orckit's outstanding Ordinary shares on the date on which the plan was consummated, Orckit then distributed those shares to its shareholders, on a share-forshare basis, by means of a stock dividend. Tioga also issued to the holders of options to purchase Ordinary shares of Orckit, options to purchase an equivalent number of Tioga's Ordinary shares.

Upon the closing of the transactions contemplated by the separation agreement, Tioga assumed all employment-related obligations, accrued benefits and severance pay of Orckit's employees whom Tioga employed.

2. Intellectual property agreement:

Tioga entered into an agreement with Orckit for the (i) assignment to Tioga of substantially all of Orckit's semiconductor intellectual property, including patents and patent applications, and (ii) joint ownership of the condor chip and certain other technologies without accounting to each other, and (iii) irrevocable license to Tioga of other non-semiconductor patents and patent applications of Orckit. In connection with this assignment, Tioga has granted Orckit an irrevocable license to use the assigned intellectual property. This agreement also contains additional provisions, including customary representations and warranties, as well as certain undertakings of indemnification.

3. Product supply agreement:

Tioga entered into a product supply agreement with Orckit, pursuant to which Tioga would sell certain semiconductors products to Orckit subject to performance criteria and price. Orckit would purchase from Tioga a substantial portion of its chipsets requirements at most-preferred customer prices.

Effective January 1, 2001 this agreement was amended to royalty agreement under which, Orckit will pay Tioga a royalty equal to 10% of the actual chips price paid by Orckit to the chips supplier. The agreement shall terminate on May 1, 2002.

4. Support and design agreement:

Tioga entered into a two-year support and design agreement, pursuant to which Tioga would complete the design of certain chips and future chips required by Orckit, and would support Orckit in the integration of these chipsets into Orckit's products, based on most-preferred customer prices.

5. Other agreements:

Each of Tioga and Orckit may, in the ordinary course of business, also enter into certain other leases, sub-leases, operating agreements and other agreements that serve to define various aspects of the relationship that will exist among the parties after the plan has been consummated. None of these agreements, either alone, or in the aggregate, is expected to materially affect the results of operations of either company.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

The Company believes that all of the agreements described above, are on a basis no less favorable than could be obtained from an independent third party. Although it is not practical to determine the amounts that the Company would have incurred had it operated as an unaffiliated entity, management believes that the amounts chargeable for the services provided by these agreements are reasonable. All future transactions between Tioga and Orckit will be on terms no less favorable than could be obtained from an independent third party.

d. The Company participated in programs sponsored by the Israeli Government through the Office of the Chief Scientist ("OCS") for the support of research and development activities. The Company is obligated to pay royalties to the OCS, amounting to 3% of the sales of the products and other related revenues generated from such projects, up to 100%-150% of the grants received, linked to the U.S. dollars and bears annual interest in a rate based on LIBOR. Repayment of such grants is not required in the event that there are no sales of products developed related to these projects.

Through December 31, 2001, the Company has a contingent liability to the OCS in the amount of \$2.

e. The Company is involved in pending litigation, as described below:

The Company is a party to an arbitration proceeding with the purchaser of the SVL Business. Pursuant to the purchase agreement \$1,800 was paid by the purchaser into an escrow account, which is due to be released to the Company in April 2002. The purchaser also owes the Company an over due amount of \$550 under the purchase agreement.

The purchaser refuses to pay the overdue amounts and made certain claims against the amount placed in escrow in an attempt to prevent its release to the Company. The Company believes, on the basis of advice it had received from its legal counsel, that it will prevail in the arbitration and that the aggregate of the escrow amount and the overdue amounts, other than perhaps certain immaterial amounts, would be paid to the Company.

NOTE 10:- SHAREHOLDERS' EQUITY (DEFICIENCY)

a. Ordinary shares:

The Ordinary shares confer upon the holders the right to receive notice to participate and vote in general meetings of the Company and the right to receive dividends, if declared.

b. Series A convertible redeemable Ordinary shares:

The Series A Convertible Redeemable Ordinary shares ("Series A") had the same rights as Ordinary shares. In addition these shares could automatically convert to Ordinary shares on a one-to-one basis according to the following schedule:

25% shall convert on the first anniversary of such issuance date and an additional 6.25% of the shares could convert at the end of each three-month period thereafter.

The Company should have the right to redeem all or a portion of the Series A shares upon termination of such holder's employment.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

Most of the purchases of Series A shares were in exchange for full-recourse promissory notes in the aggregate principal amount of \$5,075. The notes were fully recourse, bore interest at the rate of 6.08% per annum, and were payable upon the sale of any Ordinary shares issued upon conversion of the shares.

During 2001, the Company redeemed 1,450,000 of the Series A shares in exchange for the promissory notes.

The Company resolved to accelerate the conversion of 60,000 of the Series A shares to Ordinary shares, upon termination of an executive employment. The Company amortized the deferred stock compensation and charged it as expense.

The total compensation cost charged in the statements of operations in respect of the Series A shares in the year 2000 and 2001, were \$92 and \$658, respectively.

c. Stock Option Plans:

- 1. Under the Company's stock option plan (the "plan") options may be granted to employees, officers, consultants and directors of the Company or its subsidiaries.
- 2. As of December 31, 2001, an aggregate of 2,899,521 of the Company's options are still available for future grant.
- 3. Each option granted under the plan to employees expires no later than 10 years from the date of grant. The vesting period of the options is generally two-to five years. Options granted to directors are vested over four year period from their date of grant. Any option that is forfeited or not exercised before expiration become available for future grants.

	Year ended December 31,				
	2000 2001			1	
	Number of exercise		Number of options	Weighted average exercise price	
Outstanding at the beginning of the year		\$ —	3,056,963	\$ 3.8	
SVL's employees (see Note 10f)	_		(593,979)	3.0	
Granted	3,320,613	3.8	4,391,000	0.2	
Exercised	(4,690)	2	(289,599)	0.03	
Forfeited	(258,960)	4.3	(1,205,872)	2.28	
Outstanding at the end of the year	3,056,963	\$ 3.8	5,358,514	\$0.36	
Exercisable options at the end of the year	427,800	\$ 3.8	1,370,292	\$0.81	

All options granted during 2001 were at an exercise price that is equal to the fair value of the stock at the grant date.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

The options outstanding as of December 31, 2001, have been separated into exercise price categories as follows:

Exercise price	Options outstanding of as December 31, 2001	Weighted average remaining contractual life Years	Weighed average exercise price	Options exercisable as of December 31, 2001	Weighted average exercise price of options exercisable
0-3	5,155,538	7.4	\$0.12	1,216,717	\$ 0.3
3-7	100,252	7.6	4.7	60,626	5.43
7-15	102,724	8.3	7.95	92,949	7.95
	5,358,514	7.5	\$0.36	1,370,292	\$0.81

While being a part of Orckit, Tioga had no separate employee share incentive plan. Accordingly, Orckit has allocated to Tioga its share of stock compensation expense. The compensation cost that has been charged in the statements of 1999, based on Orckit's Employee share option plan was \$50.

As part of the spin-off process, Orckit's option holders maintained their outstanding options to purchase shares of Orckit and also received additional options to purchase shares of Tioga. The exercise price of the original option allocated between an Orckit option and a Tioga option, was based on the market value of the companies shares at the time of the spin-off. All other terms of the new options, other than the exercise price, remained unchanged as those of the original options. As a result, as of December 31, 2000 and as of December 31, 2001, Tioga's employees hold options to purchase Ordinary shares of Orckit.

EITF 90-9 "Changes to Fixed Employee Stock Options Plans as a Result of Equity Restructuring" discusses the accounting treatment for existing options of a company that is effecting a spin-off. In accordance with EITF 90-9, three criteria must be considered in order to determine if a new measurement date has occurred.

Since the Company followed the criteria required by EITF 90-9 no additional compensation expenses were recorded.

The following is the information related to the outstanding options as of December 31, 2001 held by Orckits' employees to purchase shares of Tioga:

Exercise price	Options outstandings as of December 31, 2001	Weighted average remaining contractual life Years	Weighted average exercise price	Number exercisable as of December 31, 2001	Weighted average exercise price of options exercisable
0-3	1,048,346	6.5	\$1.56	551,596	\$1.47
3-7	668,780	6.1	5.18	548,219	5.26
7-15	740,689	7.0	9.29	461,307	8.71
	2,457,815	6.5	\$4.87	1,561,122	\$4.94

Pro forma information regarding net loss and net loss per share is required by SFAS No. 123 (for grants issued after December 1994), and has been determined as if the Company had accounted for its employee options

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

(including options granted to SVL's employees prior to their termiation and to Orckit's employees in relation to the spin-off) under the fair value method of that statement. The fair value for these options was estimated at the date of grant using a Black-Scholes Option Valuation Modell, with the following weighted-average assumptions for each of the two years in the period ended December 31, 2001. Expected volatility of 82% and 170%, respectively, risk-free interest rates of 5% and 4% respectively, dividend yield of 0% for each year, and a weighted-average expected life of the option of 3 years for each year.

Pro forma information under SFAS No. 123:

	Year ended December 31,		
	2000	2001	
Net loss as reported	\$132,195	\$18,150	
Pro forma net loss	\$134,484	\$21,735	
Pro forma basic and diluted net loss per share	\$ 5.99	\$ 0.92	

d. Employee share purchase plan:

In September 2000, the Company's board of directors adopted the Employee Share Purchase Plan (the "Purchase Plan"). Eligible employees can have up to 10% of their earnings withheld, up to certain maximums, to be used to purchase Ordinary shares. The price of Ordinary share purchased under the Purchase Plan will be equal to 85% of the lower of the fair market value of the Ordinary share on the commencement date of each offering period or on the semi-annual purchase date Pursuant to the plan. On November 6, 2001, the Company resolved to terminate its employee share purchase plan.

During 2001 49,417 Ordinary shares of the Company were issued upon exercise of the purchase plan.

e. Warrants issued to service providers:

- 1. On June 17, 1998, the subsidiary granted a warrant to a consultant to purchase Ordinary shares of the subsidiary which will vest immediately in the event of a "corporate transaction". Upon the acquisition of the subsidiary this warrant vested immediately and converted to 14,741 ordinary shares of the Company. Accordingly, the subsidiary recorded compensation expense in the amount of \$1,081.
- 2. On December 17, 1998, the subsidiary issued warrant to a bank, to purchase its Ordinary shares. All warrants were exercised upon consummation of the acquisition by Orckit during 2000 and were converted into 29,249 shares of the Company.
- 3. On February 16, 2000, the subsidiary issued warrant to a bank, to purchase a number of the subsidiary's Ordinary shares, having an aggregate exercise price in the amount of \$250. Upon consummation of the acquisition by Orckit, all warrants were exercised and converted 1,294 Ordinary shares of the Company in accordance with the cashless exercise method as described in the warrant agreement. As a result, the subsidiary recorded compensation expenses in the amount of \$110.
- 4. During 2001, the Company granted 160,000 options to consultants, out of which 60,000 have cliff vesting of five years and the remainder are fully vested.

The Company also granted 20,000 options and 80,000 warrants to purchase Ordinary shares of the Company to another consultant, which were accelerated according to the agreement between the Company and the service provider.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

The Company accounts for its warrants and options to consultants under the fair value method of SFAS No. 123 and EITF 96-18. The fair value of these warrants and options was estimated using the Black-Scholes Option-Pricing Model, with the following weighted-average assumptions for 2001: risk-free interest rates of 5%; dividend yields of 0%; volatility factors of the expected market price of the Company's Ordinary shares of 1.7; and a weighted-average expected life of the warrants of approximately one to two years.

During 2001, 50,000 options were exercised.

During 2001, the Company recorded compensation expenses of \$140 in regard to consultants options (out of which \$90 included in the discontinued operations).

f. Under the agreement between the Company and SVL's employees, the exercise price of their vested options was amended to NIS 0.10 per share. The Company recorded compensation expenses on the new measurement date of \$51 (as part of the 1,544 compensation expenses. See also note 10g.).

Upon the disposal of SVL's ASIC business most of SVL's employees transferred to the purchaser and changed their status from employees to non-employees.

The Company accounts for the unvested options under the fair value method of SFAS No. 123 and EITF 96-18.

As of December 31, 2001, the Company recorded no compensation expenses, due to the exercise price of the unvested options being very high.

As of December 31, 2001, the outstanding options held by SVL's employees were 601,515, out of which 253,973 options were exercisable.

- g. In April 2001, the Board of Directors of the Company resolved to reprice stock options of certain of its employees and employees of Orckit and SVL. The exercise price of the repriced stock options was NIS 0.10 par value. The Company had a new measurement date and consequently recorded deferred compensation of \$3,374, out of which \$1,544 was amortized to the statement of operations.
- h. In March 2000, Orckit issued \$125 million aggregate principal amount of its 5.75% convertible subordinated notes due in April 2005. Holders of the notes are entitled to convert each \$1,000 principal amount of the notes into 11.7481 Ordinary shares of Orckit (which is equivalent to a conversion price of \$85.12 per share) plus 11.7481 Ordinary shares of Tioga. The conversion rates with respect to Orckit and Tioga are subject to adjustment in certain circumstances, such as changes in the applicable Company's capital structure or upon the issuance by the applicable company of stock dividends or certain cash distribution.

As of December 31, 2001, the aggregate principal amount of the convertible subordinate notes was \$66.4 million. During 2001, only \$31 million was converted into Ordinary shares of the Company.

i. Dividends:

In the event that cash dividends are declared in the future, such dividends will be paid in NIS. The Company does not intend to pay cash dividends in the foreseeable future.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

NOTE 11:- TAXES ON INCOME

a. Measurement of taxable income under the Income Tax (Inflationary Adjustments) Law, 1985:

Results for tax purposes are measured in terms of earnings in NIS after certain adjustments for increases in the Israeli Consumer Price Index ("CPI"). As explained in Note 2c, the financial statements are measured in U.S. dollars. The difference between the annual change in the Israeli CPI and in the NIS/dollar exchange rate causes a further difference between taxable income and the income before taxes shown in the financial statements. In accordance with paragraph 9(f) of SFAS No. 109, the Company has not provided deferred income taxes on the difference between the functional currency and the tax bases of assets and liabilities.

b. Tax benefits under the Law for the Encouragement of Capital Investments, 1959:

Orckit's facilities in Tel-Aviv and Jerusalem, which were transferred to the Company as part of the spin-off have been granted an "Approved Enterprise" status under the above law and the Company and its subsidiary have elected the alternative benefits program waiver of grants in return for tax exemptions. Pursuant thereto, the income of the Company derived from the "Approved Enterprise" program is tax-exempt for two years and will enjoy a reduced tax rate of 25% for a five-year period.

The Company received approval for the main "Approved Enterprise" in 1993 and 1996, respectively. As the Company currently has no taxable income, the benefits have not yet commenced for both programs.

The period of tax benefits, detailed above, is subject to limits of the earlier of 12 years from the commencement of production, or 14 years form receiving the approval, whichever is earlier.

The entitlement to the above benefits is conditional upon the Company's fulfilling the conditions stipulated by the above law, regulations published thereunder and the instruments of approval for the specific investments in "Approved Enterprises". In the event of failure to comply with these conditions, the benefits may be canceled and the Company may be required to refund the amount of the benefits, in whole or in part, including interest.

If the retained tax-exempt income is distributed in a manner other than in the complete liquidation of the Company, it would be taxed at the corporate tax rate applicable to such profits as if the Company had not chosen the alternative tax benefits (currently—25%), and an income tax liability would be incurred.

The Law also entitles the Company to claim accelerated depreciation on equipment used by the "Approved Enterprise" during five tax years.

c. Should the Company derive income from sources other than the "Approved Enterprise" during the periods of benefits, such income shall be taxable at the regular corporate tax rate of 36%.

d. Deferred income taxes:

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company and its subsidiary's deferred tax liabilities and assets are as follows:

	December 31,	
	2000	2001
Operating loss carryforward	\$ 4,125	\$ 7,560
Reserves and allowances	537	397
Net deferred tax asset before valuation allowance	4,662	7,957
Valuation allowance	(4,662)	(7,957)
Net deferred tax asset	<u>\$ —</u>	<u>\$ —</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

Management currently believes that since the Company and its subsidiary have a history of losses it is more likely than not that the deferred tax assets regarding the loss carryforwards and other temporary differences will not be realized in the foreseeable future.

e. Net operating losses carryforwards:

The Israeli companies have accumulated losses for tax purposes as of December 31, 2001, in the amount of approximately \$ 19,000, which may be carried forward and offset against taxable income in the future for an indefinite period.

As of December 31, 2001 the subsidiary in the U.S. had approximately \$2,000 federal net operating loss carryforwards for income tax purposes.

f. Loss from continued operations consists of the following:

	Year ended December 31,			
	1999	2000	2001	
Domestic	\$(3,464)	\$ (9,989)	\$(11,133)	
Foreign		(1,367)	(2,974)	
	\$(3,464)	\$(11,356)	\$(14,107)	
			=	

NOTE 12:- RELATED PARTIES TRANSACTIONS

The balances with and the results of operations from transactions with Orckit, a related party, were as follows:

Balances with related parties:

		December 31,	
		2000	2001
		\$	\$
Trade receivables		8,398	21
Current account		(11,618)	(214)
Long-term loan (See Note 8)		(20,000)	(20,000)
	Year	ended Dece	mber 31,
	1999	2000	2001
	\$	\$	\$
Transactions:			
Revenues	4,410	0 14,517	1,418
Cost of revenues	3,969	9 13,107	_
Financial expenses		781	1,200

NOTE 13:- DISCONTINUED OPERATIONS

a. Discontinued operations:

In April 2001, the Company sold its ASIC division of its wholly owned subsidiary ("SVL"—see also Note 1) in consideration of \$22.25 million in cash, debt assumptions and future services to be rendered by the purchaser for two years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

As of December 31, 2001, the Company received \$16,200 in cash (\$15,821 net of selling expenses), in addition to \$1,800 which is in an escrow deposit until April 2002, and the purchaser also assumed \$2,500 of debt assumptions. The Company is also entitled to receive services from the purchaser for two years, in consideration of \$1,750. As of December 31, 2001, the Company had a balance of \$874 in prepaid expenses of other current assets, and \$219 in long-term prepaid expenses.

As a result of this transaction, Tioga recorded a capital gain of \$45, as part of the discontinued operations. This transaction was accounted for in accordance with EITF 95-18, "Accounting and Reporting for a Discontinued Business Segment When the Measurement Date Occurs After the Balance Sheet Date But Before the Issuance of the Financial Statements", and APB-30, "Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions". In the future, the Company will be engaged only in the design, development, manufacture and marketing of its DSL Chips.

b. As a result of the selling of the ASIC business as mentioned above, the results of operations of the ASIC business were reported separately as discontinued operations in the statement of operations for the year ended December 31, 2000 and 2001 respectively, and are summarized as follows:

	April 1, 2000 (date of acquisition) till December 31, 2000	Year ended December 31, 2001
Revenues	\$ (7,262)	\$(4,968)
Cost of revenues	6,601	1,740
Net income from cancellation of NRE projects	(197)	(494)
Research and development expenses	10,534	2,821
Selling, general and administrative expenses	6,344	1,787
In process research and development	24,695	
Goodwill amortization	21,598	2,259
Impairment of goodwill and other intangible assets	58,068	_
Impairment of property and equipment		823
Spin-off expenses	239	_
Financial expenses, net	49	79
Loss from selling property and equipment		28
Income taxes	170	13
Gain from the disposal of SVL business		(45)
Net loss	\$120,839	\$ 4,043

NOTE 14:- SEGMENTS CUSTOMERS AND GEOGRAPHICAL INFORMATION

a. Summary information about geographic areas:

As a result of the sale of the ASIC division, the Company is engaged only with the DSL business and manages its business on a basis of one reportable segment. See Note 1.a for description of the Company's business. The following data is presented in accordance with SFAS No. 131 "Disclosure About Segments of an Enterprise and Related Information". Total revenues are attributed to geographic areas based on location of end customers.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

The following presents total revenues for the years ended December 31, 1999, 2000 and 2001:

	Year ended December 31,		
	1999	2000	2001
Israel	\$5,120	\$*)14,517	\$*)1,425
	\$5,261	\$ 14,517	\$ 1,440

^{*)} See Note 12.

Most of the Company's long lived assets are in Israel.

NOTE 15:- SELECTED STATEMENTS OF OPERATIONS DATA

	Year ended December 31,		
	1999	2000	2001
Financial income (expenses), net:			
Financial expenses:			
Interest	\$	\$ (723)	\$(1,587)
Foreign currency translation	_	(251)	_
Losses from available-for-sale marketable securities	_		(99)
Other	_	_	(46)
		(974)	(1,732)
Financial income:			
Gains on available-for-sale marketable securities		1,510	
Foreign currency translation	_	125	10
Interest	80	308	484
	80	1,943	494
	\$ 80	\$ 969	<u>\$(1,238)</u>

NOTE 16:- SUBSEQUENT EVENTS

a. The Company signed an agreement with STMicroelectronics ("ST") a semiconductor company. Under the agreement the Company will grant ST co-ownership rights to all of the Company's existing intellectual property. In addition the Company will transfer to ST the entire ownership over its existing products. Tioga shall be paid upon closing of this transaction, which is subject to all applicable approvals, including but not limited to shareholders' approval and OCS's approval, \$10,000. In addition the Company will provide ST with research and development and marketing services for four consecutive quarters, in consideration of up to \$8,000 (this amount may be decreased if the Company reduces its R&D workforce below 55 employees). The Company will also grant ST the right to acquire all of the Company's assets or alternatively, to cause the Company to merge with a wholly owned subsidiary of ST if certain conditions are met (the "Call Option"), and ST will grant the Company the right to cause ST to effect the merger if certain conditions are met (the "Put Option"), until January 15, 2003. Upon exercise of the Call Option or the Put Option, ST shall pay \$12,000 adjusted for certain assets and liabilities of the company at the time of closing.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) U.S. dollars in thousands (except share data)

b. Subsequent to the balance sheet date, and as part of the agreement with ST, the Company and Orckit agreed that pursuant to Orckit loan agreement the Company will repay Orckit \$13,000 upon the closing of the agreement with ST and up to additional \$3,000 until the earlier of February 1, 2003 or the option closing. The Company and Orckit also agreed that upon and concurrently with the option exercise and closing, the loan, together with all due accrued and unpaid interest, shall be paid by the Company to Orckit. Except for these changes the terms of the loan remain in full force and effect.